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ABSTRACT

This document is a nine-unit curriculum guide for a high school (grades 10-12) course in clothing instruction. The units contain one or two lessons on the following topics: (1) psychological aspects of clothing (behavior, image, and dress; self-concept and self-image); (2) wardrobe selections (wardrobe consumerism, wardrobe evaluation and planning); (3) textiles technology (fibers and fabrics); (4) equipment (equipment use, equipment consumerism); (5) construction (project selection and fabric preparation; intermediate construction techniques); (6) career opportunities (textiles and apparel careers; entrepreneurship opportunities); (7) creative sewing (specialized techniques; original designs); (8) recycling and alterations (redesigning/recycling clothing and/or fabric; alterations and repairs); and (9) children's clothing (clothing needs and construction techniques). Each unit contains the following: objectives, concepts, competencies, learning activities, assessment and evaluation questions related to competencies, teacher background information, transparency masters, student activity guides, and teacher keys. (KC)

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ED 433 449

DYNAMICS OF CLOTHING II

Curriculum Guide
A Family and Consumer Sciences Education Course of Study
for Grades 10 - 12

under the direction of
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DYNAMICS OF CLOTHING II

Curriculum Guide
A Family and Consumer Sciences Education Course of Study
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the Utah State Office of Education
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DYNAMICS OF CLOTHING II
(LEVEL II)

Grades: 9-12
One or Two Semesters

CIP CODE 20.0103

This course is designed to allow students to develop clothing construction and consumer skills. Fabric selection, alteration, recycling, fitting, creative designing, and fashion may be explored in this course. Student leadership (FHA/HERO) may be an integral part of this course.

SCOPE AND SEQUENCE:

I. PSYCHOLOGICAL ASPECTS OF CLOTHING *(2%)*

A. Behavior, Image, and Dress
1. Analyze the relationship of behavior, images, and dress.
2. Determine appropriate attire for a variety of occasions.

B. Self-Concept and Self-Image
1. Evaluate the role self-concept plays in clothing choices.
2. Analyze the impact of one's personal image on his/her self-concept.

II. WARDROBE SELECTIONS *(6%)*

A. Wardrobe Consumerism
1. Analyze personal clothing expenditures.
2. Review quality indicators of clothing.
3. Review smart consumer techniques.
4. Describe the pricing structure of clothing.
5. Differentiate between various types of clothing labels.
6. Decipher what advertisements really say.
7. Differentiate between various kinds of sales.

B. Wardrobe Evaluation and Planning
1. Identify outside influences on clothing decisions.
2. Evaluate the role personal values play in a wardrobe plan.
3. Review present wardrobe and evaluate for adequacy and appropriateness to personal lifestyle and activities.

III. *FABRIC SELECTION AND PREPARATION*

A. Fibers and Fabrics

1. Explore the history and origins of fibers used in fabric construction.
2. Review characteristics of various fibers.
3. Study the characteristics of a larger variety of fibers.
4. Review the basic types of fabric construction.
5. Study a larger variety of weaving and knitting patterns and the appropriate uses of the end products.
6. Study various types and purposes of fabric finishes and their effects on the end product.
7. Identify and name a large number of fabrics.
8. Use standard terms related to textile technology.

IV. *EQUIPMENT* *(6%)*

A. Equipment Use

1. Review basic equipment needed for sewing and pressing.
2. Exhibit proficiency in use of specialized equipment for sewing and pressing.
   a. Thread and adjust serger as needed.
   b. Perform a wide variety of serger techniques.
   c. Demonstrate use of pressing ham, counter-top presser, needle or velva board, commercial iron, and other applicable pressing equipment.
   d. Perform a wide variety of sewing machine techniques, with and without special attachments.

B. Equipment Consumerism

1. Itemize various equipment needed for personal and/or family clothing construction.
2. Assess the costs of sewing equipment.
3. Compare the costs and features of various types of machines for potential purchase.

V. *CONSTRUCTION TECHNIQUES* *(48%)*

A. Project Selection and Fabric Preparation

1. Assess level of personal sewing skills.
2. Select sewing project(s) that incorporate(s):
   a. knowledge of fabric construction and care.
   b. personal wardrobe plan.
   c. construction techniques to be learned.
   d. level of personal sewing skills.

3. Review preparation of fabric for cutting and sewing.
4. Review special handling techniques required for specialty fabrics.
5. Prepare construction schedules.

B. Intermediate Construction Techniques

1. Incorporate and complete the following suggested intermediate level construction techniques in various projects:
   - a. seams and seam finishes
   - b. darts, tucks, and pleats
   - c. interfacing
   - d. binding (bias and bias treatments)
   - e. zippers
   - f. pockets
   - g. sleeves, plackets, and cuffs
   - h. collars and necklines
   - i. lining/underlining
   - j. facings
   - k. waistbands and belts
   - l. hem treatments and finishes
   - m. speed tailoring
   - n. ruffles and trims
   - o. bound buttonholes
   - p. specialty fabrics
2. Follow pattern information, marking guides, and sewing guidelines.
3. Utilize appropriate pressing methods throughout construction.
4. Demonstrate mastery of intermediate level construction techniques on samples and/or sewing projects.
5. Utilize time-management skills to complete projects.

VI. CAREER OPPORTUNITIES *(6%)*

A. Textiles and Apparel Careers

1. Identify textiles and apparel related career opportunities.
2. Explore a specific textiles and apparel related career (e.g., retail sales, alterations, repairs, instruction, production, design, communication, textiles manufacture, etc.).
3. Evaluate the advantages and disadvantages of various career opportunities related to textiles and apparel.

B. Entrepreneurship Opportunities

1. Identify entrepreneurship/home-based industry opportunities related to textiles and apparel.
2. Assess the advantages and disadvantages of entrepreneurship opportunities related to textiles and apparel.

3. Examine the characteristics, work ethics, personal discipline required of successful entrepreneurs.
4. Recognize and use standard business related terms.
5. Set up a home-based business (in theory or reality) related to textiles and apparel, based on the application of sewing skills for profit.

   OR

   Establish a group industry related to textiles and apparel, based on the application of sewing skills for profit.

VII. CREATIVE SEWING (11%)

A. Specialized Techniques

1. Recognize sewing as a creative outlet.
2. Perform specialized sewing techniques, such as quilting, inserting piping or pregathered lace, appliqué, tucks, machine embroidery, etc.
3. Apply specialized sewing techniques to garments/projects.

B. Original Designs

1. Identify methods for developing original designs.
2. Study flat pattern design principles.
3. Apply flat pattern design techniques.
4. Incorporate original designs and/or specialized techniques in project(s).

VIII. RECYCLING AND ALTERATIONS (6%)

A. Redesigning/Recycling Clothing and/or Fabric

1. Recognize a variety of creative ways to recycle or redesign clothing and/or fabric.
2. Identify the practical benefits of recycling as it relates to textiles and apparel.
3. Recycle and redesign an article of clothing and/or fabric (e.g., adding an applique, handwork, or decorations to an existing article, recycling fabric from an old article into a new article, etc.)

B. Alterations and Repairs

1. Identify various types of repairs commonly needed on clothing and/or household items (e.g., buttons resewn, zippers replaced, seams or stitching resewn, worn places reinforced, tears or rips mended, etc.).
2. Recognize the economic and aesthetic value of making timely clothing repairs to increase life span of garments and maintain original appearance.
3. Identify various types of alterations commonly needed for proper fit and appearance along with possible solutions (e.g., changing hemlines, modifying cuffs, altering necklines, removing collars, changing leg width, replacing buttons, etc.).

4. Explore areas of application for alteration techniques:
    a. Ready to wear (new clothing)
    b. For the disabled
    c. Recycled articles
5. Apply alterations and/or repair techniques.

IX. CHILDREN'S CLOTHING *(11%)*

A. Clothing Needs of Children and Construction Techniques

1. Study the special fitting and design needs of children.
2. Compare ready-made articles of children's clothing to custom-sewn articles for cost, quality of fabric and construction, design features, comfort, personal preference, and appearance.
3. Identify specific construction and fitting techniques used in children's clothing to those used for adult clothing.
4. Incorporate children's construction and fitting techniques in a child's article of clothing.

DYNAMICS OF CLOTHING II

UNIT I:	*PSYCHOLOGICAL ASPECTS OF CLOTHING*
TOPIC A:	**BEHAVIOR, IMAGE, AND DRESS**
OBJECTIVE:	Students will explore the role clothing choices play on one's behavior.
CONCEPT:	One's behavior is affected by one's dress. When we are dressed appropriately for the occasion, we tend to act appropriately. When we are not dressed appropriately, our behaviors have a tendency to follow suit. Being dressed appropriately brings a feeling of confidence and puts one at ease.

COMPETENCIES:

1. Analyze the relationship between behavior, image, and dress.
2. Determine appropriate attire for a variety of occasions.

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. Behavior, Image, and Dress	Large pictures of people in different types of attire Overhead transparency (II-I-10)
2. Clothing Communicates Video	Video Video player
3. Courtroom-Type Video Clip	Video Video player
4. Clip Without Sound	Video Video player
5. Dress Codes	Copies of student activity guide (II-I-11)
6. Appropriate Dress Pictures	Slides, photos, or video of people in appropriate and inappropriate attire
7. Appropriate Dress Choices	Copies of student activity guide (II-I-26) - Three per student
8. Dress Differently for a Day	Copies of student activity guide (II-I-27)

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ACTIVITIES/OPTIONS

Option 1: Behavior, Image, and Dress

Have several large pictures of people in different types of attire. Ask the class what they can tell about these people by what they have on or how they are dressed. Try to steer the discussion away from stereotyping issues and direct it toward personal characteristics. Assist the students in identifying their personal reactions to the dress of the people in the pictures. (If the class members are mature enough to handle such a situation, have the students react to each other's appearance.)

Explain that sometimes the messages our appearances communicate are not received the way we intend. You and your friends may think your appearance communicates one message, but other people think your appearance means something else. On the other hand, as a receiver, the individual's first iimpressions are based on a personal frame of reference. Our community, family, friends, education, and experiences contribute to the kinds of judgments we make. Therefore, our judgments of others are greatly influenced by our own approaches to dress and grooming.

Divide the class into pairs and have each pair discuss and analyze their own behavior in relationship to dress. Give the students a couple of examples so they understand what to do. Stress that this is a time for honest, open analysis-not for personal criticism or judgment. Also have each group identify examples they have observed when the message sent by someone was not the message received by others.

Bring the class back together to summarize the relationship of dress to behavior. Illustrate this interrelationship by using the overhead transparency provided in the resource section.

Option 2: Clothing Communicates Video

Show the video, Clothing Communicates, from Glencoe. Discuss the major points of the video and the messages and concepts attained therefrom.

Option 3: Courtroom-Type Video Clip (such as Law and Order)

Show a video depicting the attire of someone being arrested, the attire they wear to court, and compare the difference. This can be taped from a television program.

Option 4: Clip Without Sound

Record a clip from a television show or movie without sound and have the students evaluate the impact of personal images to the characters. Use something like My Fair Lady, Thoroughly Modern Millie, or an edited version of Pretty Woman.

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ACTIVITIES/OPTIONS

Option 5: **Dress Codes**

Give each student a copy of the student activity guide, DRESS CODES, and have them fill in what they know (or think) was the code for the eras listed. Then have the students generate a code for the '90s. This should prompt a discussion regarding why dress codes exist, when and where they are functional and/or appropriate, etc. It is a good time to identify the purposes, advantages, and disadvantages of dress codes. Dress codes establish what is and isn't appropriate and/or acceptable attire.

A large section of teacher background information is provided to support this activity.

Option 6: **Appropriate Dress Slides or Photos**

The purpose of this activity and the next one are to help students determine appropriate attire for a variety of activities and/or occasions. Recognizing that what is appropriate and what isn't is somewhat discretionary; however, there are some social standards that dictate what is and isn't appropriate. This is a good opportunity to assist the students in recognizing the appropriateness of various types of clothing for various activities. The teacher will need pictures to do this. The Extension Services often has some sets of slides on appropriate dress that might be borrowed, or the teacher may choose to develop his/her own slide show from photos, mount pictures of types of dress that are appropriate for various occasions on large sheets or poster board, or take videos of people in public places, such as:

- bus station
- airport
- fast food restaurant
- park
- shopping mall
- truck stop
- sports event
- concert

Follow the discussion with the next activity.

Option 7: **Appropriate Dress Choices**

Have each students list four (4) to six (6) different activities and/or occasions he/she has been involved in during the last month, using one-half page per activity (see sample in the resource section). Then have students choose pictures from magazines and/or pattern books of appropriate attire for each of those occasions. This could be accomplished as a collage or a more formal approach can be taken.

Then, have the students take the same list of various activities and/or occasions and describe what they could wear from their own wardrobe to those events that would be appropriate attire.

ACTIVITIES/OPTIONS

Some suggested occasions are:

- Wedding
- School banquet
- School stomp
- Biking
- Amusement park
- Funeral
- Ball game
- Formal dance
- Rock concert
- Apply for a job
- Church
- Going to the mall
- Hiking/mountain climbing
- Professional theater/symphony
- ______________________

Option 8: **Dress Differently for a Day**

Assign students to dress different than normal for a day and not tell anyone why. Have the students record the reactions to their different style of dress throughout the day. The following class period, discuss the reactions of others to them as well as their personal reactions to others.

NOTE: See the Dynamics of Clothing I curriculum for other activities on this topic. Any activities not used in that class can be used here.

RESOURCES:

Video:

Clothing Communicates, Glencoe, P.O. Box 543, Blacklick, OH 43004-0543, 1-800-334-7344. Catalog No. 0-02-636040-3)

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ASSESSMENT/EVALUATION QUESTIONS

1. Analyze the relationship between behavior, image, and dress.

1. The way we dress is a form of non-verbal communication.
   A.* True
   B. False

2. Others' perceptions of us will always be accurate if they are based on the way we dress.
   A. True
   B.* False

3. The way we dress has no influence on the way we act or behave.
   A. True
   B.* False

4. Give two (2) examples of how behavior is dictated by dress.
   - Answers will vary

5. Once people get to know us, they no longer look at the way we dress.
   A. True
   B.* False

6. The messages sent by our dress are influenced by many factors.
   A.* True
   B. False

7. Our values and attitudes affect not only our clothing choices but also other choices we must make.
   A.* True
   B. False

2. Determine appropriate attire for a variety of occasions.

1. Describe appropriate attire for attending a professional theater or going to the symphony.

2. Describe appropriate attire for a rock concert.

3. Describe appropriate attire for hiking or mountain climbing.

4. Describe appropriate attire for a formal dance.

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ASSESSMENT/EVALUATION QUESTIONS

5. Describe appropriate attire for church or a funeral.

6. Define the term appropriate.

7. When we make favorable first impressions, we begin to feel:
   A. Comfortable and rejected
   B.* Comfortable and accepted
   C. Uncomfortable and accepted
   D. Uncomfortable and rejected

8. We tend to judge others by our own approaches to and standards of dress and grooming.
   A.* True
   B. False

9. When we are dressed inappropriately for an occasion, we tend to feel:
   A. Comfortable and at ease
   B.* Uncomfortable and uneasy
   C. Like we don't care

THE IMPORTANCE OF CLOTHING AND ONE'S APPEARANCE

Some of the most common aspects of everyday life have a very subtle but important influence on our interactions with one another. One's own personal appearance is often taken for granted because it is so familiar, visible, and tangible. Many individuals overlook the fact that we all "read" clothing and grooming on a daily basis to judge the actions, thoughts, and behavior of other people. This is a form of nonverbal communication–the use of symbols instead of words.

As with verbal symbols, nonverbal communication is successful only if the symbols are interpreted the same way by both the person sending the message and the person receiving the message. If the symbols do not have the same meaning to the sender and receiver, a misinterpretation or misunderstanding of messages may occur.

A person's first impression of you is influenced by your appearance. This is why clothing and grooming can be so important in interviewing for jobs, making new friends, and many other life situations. The way you look may make another person or group want to know more about you or lose interest in you.

Your personal appearance can also call forth a variety of reactions from people who know you and are around you on a daily basis. Consciously or unconsciously, friends, family, teachers, fellow students, employers, and other employees respond or react to your appearance in positive or negative ways.

The clothing, accessories, hair styles, and grooming choices that you make communicate your self-concept and/or self-image. Your self-image is what you "see" in your mental picture of yourself. All of us have mental images of how we look and how we behave. Unfortunately, if your self-image results from an incorrect assessment of your physical and psychological self, the messages you send may cause confused or negative reactions.

The success of the appearance messages sent by an individual, and how that same individual reads the messages sent by others, is influenced by many factors. Each of us learns many values and attitudes about clothing and personal appearance. These values and attitudes affect not only our clothing choices but also other choices we must make regarding appearance and behavior.

The force of fashion is evident all around us every day. Styles and colors of automobiles, houses, and furniture change. Different foods and methods of preparing foods are more fashionable at one time than at another. Entertainment, such as music, movies, and television, has many fashion variations. Our lifestyles, values, social standards, and language are also shaped by fashion changes. These changes are reflected in family life, education, business, and government. In some areas, however, change evolves more slowly because of the restrictions imposed by costs, laws, or limited exposure to new people. Modern technology plays an important role in how quickly change occurs and how fast the population gains knowledge of the changes.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture.

FIRST IMPRESSIONS

Experts estimate that communication with words is only 7 percent of the total message we give to others. A much larger percentage of our communications are conveyed nonverbally. Clothing, posture, grooming, facial expressions, body carriage, and gestures are all nonverbal symbols. These messages transmit a variety of information that usually becomes the basis of our first impression of a person.

Whether or not their perceptions are fair or accurate, other people do base some of their judgments about each of us on nonverbal signals. Also, we may not want to admit it, but we make the same type of judgments about them.

Sometimes first impressions are false, but very often they are not. The accuracy of the first impression you make is particularly important in situations where you have an opportunity for only one encounter with a particular person or group. Examples of such situations include interviews or competitions for state and regional awards.

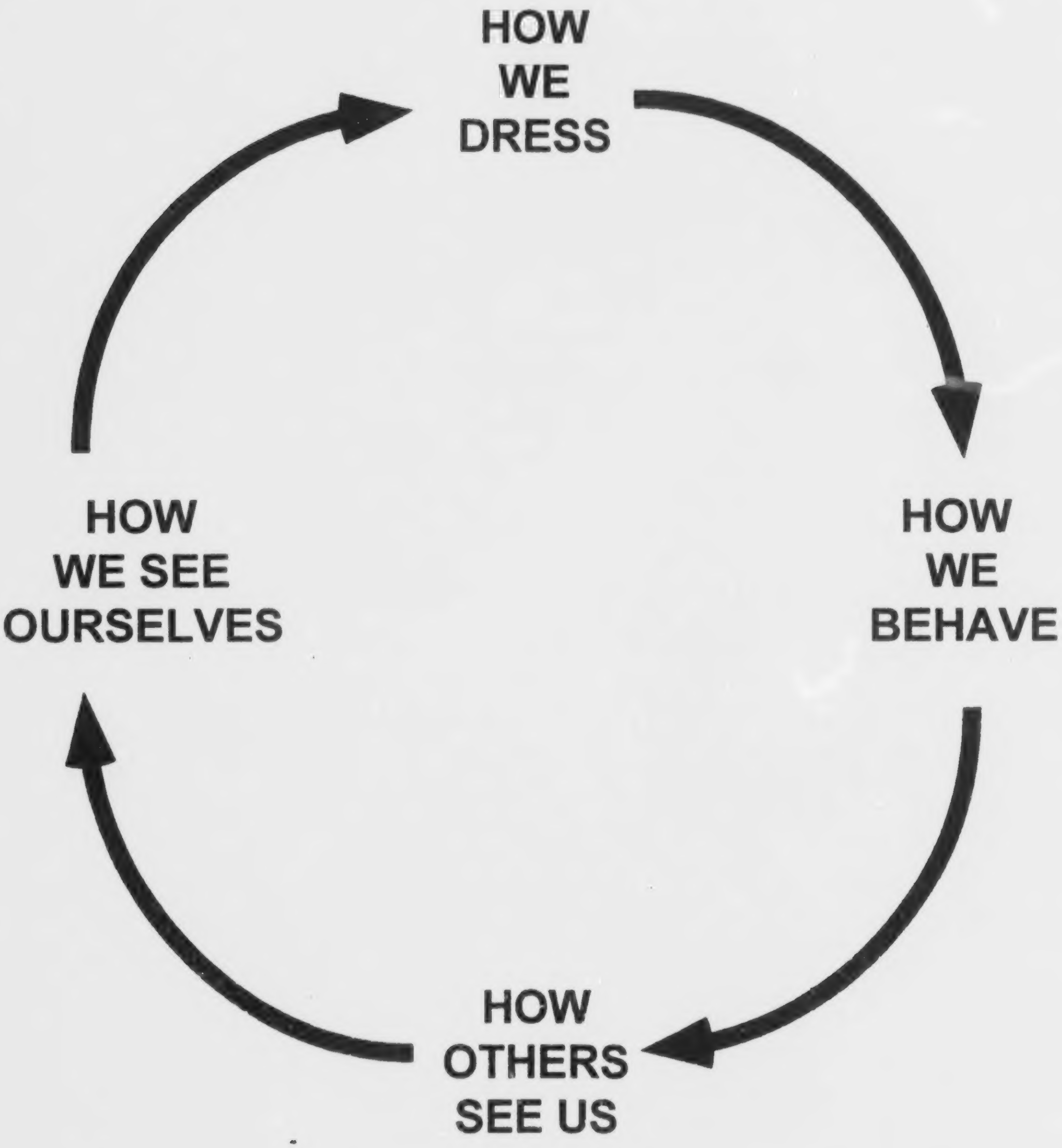
When we make favorable first impressions, we begin to feel comfortable and accepted. Almost everyone desires to belong and to feel accepted. People use a variety of ways to gain acceptance. One way is to try to match their own appearance to that of others. You and your friends may like to wear similar clothes and hairstyles. These nonverbal symbols communicate that you are a part of the group and accepted by the others. Another way that people try to seek acceptance is by dressing appropriately for certain occasions and circumstances. For example, if you are applying for a job, you might dress differently than you would for relaxing with friends.

Sometimes the messages our appearances communicate are not received the way we intend. You and your friends may think your appearance communicates one message, but other people think your appearance means something else. As a receiver, the individual's first impressions are based on a personal frame of reference. Our community, family, friends, education, and experiences contribute to the kinds of judgments we make. Therefore, our judgment of others is greatly influenced by our own approaches to dress and grooming.

Researchers have found that in some situations the first impression may become lasting and unchanging even after additional contacts with the person. This is most likely to happen if the first impression is "colored" by perceptions of certain unclear traits, such as smart or dumb, good or bad, and honest or dishonest. If someone is positively impressed with a person at the first meeting, he or she will credit that person with positive traits and skills that may not have any relationship to the first encounter or to the individual. For example, a teacher who likes the way a student looks and behaves on the first day of class may assume the student is smart. Throughout the year, the student may make excellent grades even though they are not always earned. Unfortunately, the reverse of this situation can also occur when someone makes a negative impression.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture.

BEHAVIOR AND DRESS CYCLE



HOW
WE
DRESS

HOW
WE
BEHAVE

HOW
OTHERS
SEE US

HOW
WE SEE
OURSELVES

Name ______________________ Period __________ Date ____________

DRESS CODES

Directions: Write what you know (or think you know) were the dress codes for the following eras. An example has been provided. Then write what you think is the dress code for the '90s or what you think it ought to be.

1880s:
1. Women cannot wear bathing suits in public.
2. Women cannot wear a slit skirt that exposes their ankles.
3. Men's collars or neckties cannot be removed from their shirts.
4. Men's shirt sleeves cannot be rolled up.

1900s:
1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

1920s:
1. ______________________________
2. ______________________________
3. ______________________________

1940s:
1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

1960s:
1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

1970s:
1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

1980s:
1. ______________________________
2. ______________________________
3. ______________________________

1990s:
1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________

DRESS CODES RESOURCE INFORMATION

1890s

Fashion of the 1890s had a sense of exaggeration. The silhouette of the decade could be called the exaggerated hourglass. Shoulders were wide, waists were cinched unmercifully by corsets, and the hips were incredibly increased by the bustle. The hair was piled high on the head in a "pompadour" style, and atop the mountain of hair (which usually included a bit of someone else's hair and called a "rat") sat a very large hat topped with feathers, bows, and ribbons.

In this decade there also existed a sense of exaggerated social propriety. Social mores of the times were a reflection of the widowed Queen Victoria. Standards were quite ridged, and conformity to them was very important. There was a dress standard for "respectable" men and women. In this case, the word "respectable" seemed to take on the connotation of a class division. The Queen was at one end of the spectrum, and no lower than the bottom of the middle class was considered the other end.

To conform meant to be properly dressed for any occasion whether it be for a picnic, a boating party, the theater, the opera, or to visit friends. With everyone trying so hard to do the right thing at the right time, many authors of the day found writing books on "proper deportment" the thing to do. One author, Mrs. John Sherwood, in her book Manners and Social Usages explains it this way: "One can always tell a real lady from an imitation one by her style of dress. Vulgarity is readily seen even under a costly garment. No woman should overdress in her own house, it is the worst taste." Such statements can help set the stage for the general feelings of the day.

To describe the fashions during the 1890s, the word exaggerated has already been used. Another insight could be the line of a song popular at the time, "I'm only a bird in a gilded cage." Fashions made women look beautiful but were very restrictive, uncomfortable, and in some cases physically harmful. The two main culprits in this fashion scene were the corset and the bustle. The corset was worn to cinch the waistline. It was made with whale bone or wires and laced up the back. A woman needed help to be "cinched up," and it was not unusual to shrink the waist size 6 to 9 inches. After all, if a gentleman could not fit his hands around a young lady's waist, how could he be interested in her at all? "More than one determined woman achieved a 16 to 18 inch waist by the surgical removal of the lowest ribs" (Fashion: A Mirror of History). It seems conformity was so important that even if it meant having surgery (1900s style) to remove the lowest two ribs, that was not too much to ask. An American sociologist who was famous at the time, Thorstein Veblen, saw women's fashion as a social statement of wealth and position. He saw the corset as "a substantial mutilation undergone for the purpose of lowering the subject's vitality and rendering her permanently and obviously unfit for work."

The bustle was not physically painful but was quite restrictive. It was "engineered" in 1869 and was still very respectable in 1890. The bustle was similar to a half-cage, fashioned of bone or wire, sometimes stuffed with horse hair, and fitted around the waist with a buckle or tie. Its purpose was to enlarge the lady's backside and to make the waist look very small (especially with the help of the corset). Its popularity continued for almost 40 years; some years the

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bustles were larger than others. Design details found on the beautiful dresses included: balloon and leg-o-mutton sleeves, large full skirts (usually draped with yards and yards of fabric that would include trains on most dresses), and ruffles. Evening wear was heavily embroidered and/or beaded.

By the turn of the century, bustles were smaller (dimity bustles), and pleated skirts began to replace the heavily draped skirts. The fullness moved from the bustle to the sleeves. Sleeve caps were enormous and tapered down at the elbow, fitting tightly around the wrist. These were later replaced with a smaller puff at the shoulder.

Trend setters of the day included royal figures, fashion designers of Paris, and entertainers. King Edward of England and his "serenely lovely Danish wife, Queen Alexandra, were considered to have flawless fashion sense. She is credited with popularizing tailored suits and wide, pearl neckbands for women (called "dog collars" by some).

1900s-1910s

At the beginning of the 20th century, the silhouette softened into an "S-shaped" curve. The shoulders softened and became less severe; the waist was still corsetted but in a new, less restrictive manner. The bustle was a memory, never to be revived in this century. In essence, fashion softened and became more practical.

Life in the early century was moving at a faster pace and new inventions were giving people the luxury of freedom. The telephone, the electric light, and the automobile were all labor-saving devices that changed people's lives. These changes were reflected in the fashion world.

A bicycle craze swept the country, putting an end to the bustle. Skirts worn past the ground with a train had to be revised. Mrs. Amelia Bloomer had earlier designed a "rational costume" that she considered to be much more practical for women. It seemed perfect for the avid cyclist. It consisted of a tunic dress worn over loose trousers gathered harem fashion at the ankle. Later, Mrs. Bloomer revised further to a simple split skirt gathered under the knee. These were called bloomers and were very practical for many women who were becoming more active outdoors.

One exception to the new rule of freedom and movement came from the French designer, Paul Poiret, and was known as the hobble skirt of 1910. The hemline was just large enough to allow tiny steps. Women seemed to "hobble" in them and hence the name. The Pope came to the defense of women everywhere by decreeing his concern over the disablement of women. So Poiret worked out a way to free women and slit the skirt to the knee. The response was one of outrage and very negative expressions. But sooner than later, the style showed up on respectable women everywhere.

In 1906 the permanent wave was developed that would withstand "water, shampoo, and all atmospheric influences." The permanent wave was here. In 1907 Annette Kellerman shocked the world with her one-piece bathing suit.

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There was also a women's movement going on. The Suffragettes were demanding the right to vote, wearing makeup, cutting their hair short for the first time in a "bobbed" style, and even wearing skirts that showed their ankles. They wanted liberation from the corset, Victorian styles, and "classiest mores." By 1919, hems were mid-calf by day and floor length by night.

During World War I, 1914-1919, fashion came to a standstill. Patriotism was all important; everyone wanted to help. Leisure time was considered unpatriotic and fussy clothes were out. Even in France women lost interest in fashion as they watched the disaster of war in Europe.

The Gibson Girl: An American Ideal

From the mid-1890s to the early 1920s, the Gibson Girl symbolized the ideal American woman. Her creator was illustrator Charles Dana Gibson (1867-1944) whose pen and ink drawings portrayed the "emerging woman" at the turn of the century: attractive, athletic, poised, and intelligent. The Gibson Girl served as the model for a generation of American women–urban and rural–who attempted to copy the Gibson Girl's dress and character.

Gibson's drawings were first published in Life in 1892, but it was not until 1894 that the Gibson Girl became the rage of New York. In that year, the illustrator's first collection of Gibson Girls was published. His drawings reflected various situations in American life and involved seven distinct types of females: the Beauty, the Boy-Girl, the Flirt, the Sentimental, the Convinced, the Ambitious, and the Well-Balanced.

Each of the Gibson Girls had a strong, independent personality. Gibson thought of the Boy-Girl as a "good-fellow" sort who was a sport and enjoyed the excitement of nearly losing her life on a runaway horse more than the attention of a love-sick man. He described the Convinced as the Gibson Girl who set a certain goal and pursued it without taking a single side-step. Gibson's favorite type, the Well-Balanced, illustrated the female who was all harmony and easily balanced all aspects of contemporary life. This type came nearest to a romantic bachelor's "ideal of young American womanhood."

Gibson's cartoons, as he called his drawings, were satires of American society at the turn of the century. The Gibson Girl's appearance was a breath of fresh air and was met with overwhelming acceptance. Her popularity spread quickly across the country. She was a regular feature in such widely read publications as Collier's Weekly, Century, and Harper's. By 1900, Gibson Girls were included in Leslie's Weekly, the forerunner of today's picture magazines, and in the avant-garde Ladies Home Journal, whose writers exposed social injustices and promoted worthy civic causes. The beginning of the new century also found Gibson Girls in major European periodicals, and the illustrator's works soon were collected in several books, including The American (1900), The Social Ladder (1902), and The Gibson Book (1906).

The public popularity of the Gibson Girl was totally unexpected by artist Charles Dana Gibson. His motive in creating the unique character had been to offer humorous comments on American life, and he was surprised when the Gibson Girl became a national fad. Artists all over the country began to imitate Gibson's drawing, and copies of the Gibson Girl soon appeared on silk

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handkerchiefs, china plates, hardwood easels, and leather items. The Gibson Girl was included in the cast of early vaudeville shows, and her name was given to the shirtwaist, the pompadour, and a type of riding crop.

The Gibson Girl's success was a reflection of the times. America was rapidly changing as women entered the public work force, and women were eager for a new image. The Gibson Girl conveyed the message that women could have freedom and individuality while remaining feminine. Her casual costume was evidence of new-found freedom, since the cotton shirtwaist and skirt were less hampering than the established fashion of elaborate silk dresses with frills and uncomfortable bustles.

As the shirtwaist and skirt caught the fancy of American women, those garments joined cotton underwear and kimonos to become the first mass-produced women's clothing. Workers in middle Atlantic factories produced shirtwaists and skirts patterned after the Gibson Girl costume. New York City, where the costumes were designed and marketed, became one of the world's major clothing centers.

During the first decade of the 20th century, shirtwaists took on new dimensions. From humble beginnings as simple blouses with little decoration, shirtwaists were expanded to offer a variety of styles which were tucked, be-ribboned, lace-trimmed, or wide-cuffed, with a pointed collar or high neckband. White cotton fabric was dyed bright colors and many embroidered designs were added. Tiny pearl buttons marched down the front or back plackets and accented the cuffs. Accessories usually worn with the shirtwaist included a delicate cameo broach or a tiny ladies' watch suspended on a thin gold chain.

When World War I (1914-1918) ushered shortages into America, the Gibson Girl shirtwaists and skirts–which had become almost as elaborate as the earlier silk and taffeta dresses–became too expensive to manufacture. Less expensive and simpler apparel was needed for the country's working women. As the second decade of the 20th century drew to a close, the "boyish" look became the fashion. Dresses were made of minimal fabric yardage, hanging straight and unfitted, with hemlines at or just above the knees. Pompadour hairstyles were replaced by short, curly styles, and waist-length strings of pearls replaced the old-fashioned cameos. The Roaring Twenties ushered in the Flapper and brought an abrupt end to the Gibson Girl era.

Although the work of Gibson appeared in many books and magazines, and although he was in great demand as a portrait painter the last 20 years of his life, he remains best known for his Gibson Girl. The Gibson Girl's national popularity and imitation were outstanding examples of life copying art, and Charles Dana Gibson was one of the few persons who enjoyed the accomplishment of having created an American ideal.

1920s

Life was moving ahead, and so was fashion. The silhouette of the '20s was straight up and down. A greater contrast between the ideal silhouette of the '20s and the 1890-1910s would be hard to imagine.

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Tubular is one name given to this silhouette. Another comes from the designer credited with the drastic change in women's fashion. His name was Paul Poiret and he called it "Hellenic," taken from the narrow columns of a temple built to the Goddess, Helen of Troy.

There was an attitude of change during the early '20s. World War I was over and women had worked hard in volunteer positions during the war. The right to vote, for which women (suffragettes) had been fighting with such vigor before the war, was granted to them without hesitation after the war. Women were ready for a major change in fashion, and it was given to them by Paul Poiret, a French designer who vowed, "I will strive for omission, not addition," and he did. His dresses hung from the shoulders, passing the waistline for the first time in decades.

The heavy fabrics of past decades did not seem to fit with the new tubular style. New fabrics were softer, silkier, and flowing; some were very sheer. Gauze, chiffon, silk, and crepe de chine were popular. Dress styles included the tunic top over a straight skirt, sack dresses, and a simple sheath. The empire line made a comeback; fabrics were gathered softly beneath the bustline. Colors were also soft but brilliant. Lilac, sky blue, straw (pale yellow), along with red, oranges, lemons, and "burning blues" were popular. Poiret wrote, "My sunburst of pastels brought a new dawn."

Another up-and-coming strong designer of the times had another view of fashion chic. Coco Chanel made a hit with black, navy blue, and other subtle tones of grey, tweed, green, and browns. The designs of Chanel were simple and "frill-free." She was determined to "rid women of their frills from head to toe." "Each frill discarded makes one look younger," she said. Chanel liked the lean, chic look–simple and elegant. She helped launch the bobbed hair, the twin sweater set, crocheted lace, the leather belt for women, and even sailor pants. She is credited with invading haute couture with the "style of the working girl"–a deluxe poor look, one designer observed. Chanel also revolutionized jewelry. Her costume jewelry brought styles to jewelry for the average woman that had previously only been available to the wealthy. It is interesting to note that her most famous perfume was packed in a simple square container and named No. 5. She considered five her lucky number, as she was born on the 5th day of the month. Chanel was very important to the 1920s. Her understated suits in tweed, the cardigan jacket, the jersey blouse, and the single string of pearls dominated fashion in Europe and the United States.

The French designers felt the new silhouette required a "small head." Hair was cropped and worn close to the head. Fingerwaves and spit curls were stylish. Hats were very important to complete the new fashion of the 1920s–they were also worn close to the head. The cloche was a very popular hat style. It was generally made of undecorated felt with a small brim. It encased the head like a helmet from eye level in front to low on the back of the head. Other hats were turban style, often worn with a single feather, or a bandeau worn to give a youthful appearance to the wearer. The bandeau was simply a band of fabric wrapped around the head and either knotted or pinned to secure the ends.

Underwear of the day followed the tubular silhouette. Corsets and bustles were gone. The brassiere was introduced, and in the 1920s, it was used to flatten the figure, not to uplift it.

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Some women used a simple bandeau, a stretchy band worn to flatten the figure and help create the "youthful" look of the day.

The women's movement of the 1920s brought several versions of the "new woman." One was known as the "flapper." She was characterized by short, marcel-waved or spit curled hair. The lips were heavily colored in what was called "bee stung" lips. She wore a headband around her forehead, usually with a feather in front. Her face was powdered, her skirt was the shortest in history, and her knees were rouged. Silk stockings were very much the rage; they were rolled down just above the knee.

Another modern woman of the '20s was the "thinking woman." She was college educated and considered herself to be the opposite of the flapper. Her dress was emancipated but not extreme. Smocks in bright colors like henna and chartreuse were worn over simple skirts that ended just above the ankle. Edna St. Vincent Milay expressed the liberation of the '20s intellectual woman by wearing a man's shirt and jacket much of the time.

Men's fashions were also changing during this time. Just like the ladies of the day, men were demanding their fashions to be more comfortable and practical. The shirt softened from heavy fabrics with stiff starch. The long tie with a sailor's knit gave men a choice even though the butterfly bow tie was still a standard. High button shoes were replaced with the lace or oxford shoe. The wrist watch replaced the pocket watch and chain.

The Prince of Wales was the ultimate trend setter of the 1920s. He brought back shoulder padding to suits. He liked the wide shoulder and narrow hip look with loose fitting trousers. He was the essence of classic taste. His counterpart may have been the escort of the flapper. He was wearing a slicked-down hairdo, a raccoon coat, and Oxford bags. These were extremely wide trousers, often reaching 25 inches at the knee and cuffed at the bottom.

By the 1920s, there was a great demand for safe makeup. Burnt matches, as a means of darkening eyebrows, seemed outdated. Elizabeth Arden and Helena Rubenstein were pioneers in the cosmetic industry with revolutionary products such as moisturizers, colored creams of rouge, eye shadows, and lipsticks. Suntans became fashionable by 1927, thanks again to Coco Chanel.

The "Silver Screen" was the popular entertainment of the day. Movies provided stars who were glamorous and close to American royalty. They provided instant new looks and fashions for the average person. However, the good times of the 1920s came to an abrupt end with the crash of the stock market in 1929. The gaiety of the '20s gave way to the grim reality of the Great Depression.

1930s

During the 1930s the effects of the depression were reflected in the fashions of the day. Unemployment rose to an all-time high; wages fell to an all-time low. Resources were used

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for survival of the individual and the family. In times such as these, fashions were less extravagant and more practical. It is often said that in times of hardship hemlines come down. It may not always apply, but it seemed to in the 1930s.

The 1930s was the era of "hand-me-downs." This passage of clothing had always been the rule for thrifty families, but now it became more fashionable. Children rarely had new store-bought clothing. Mothers worked hard to cut down and remake adult garments into wearable items for the family. "Depression babies had layettes sewn from sugar sacks–school children often wore underwear embellished with the trademarks of Pillsbury's or Robin Hood flour" (History of Costume by Rachel H. Kempker).

It was during the depression that classic suits and dresses were popularized. Clothes had to last and stay stylish longer, so classic lines and sensible tailored suits were favorites. The shirtwaist dress was a classic that came from this time period.

The feminine ideal changed from that of the swinging flapper to the subdued, wholesome girl next door. The rouged knee of the '20s was covered with a longer, more modest skirt. The bust was rounded again but not emphasized; the waist was back in its normal position. The overall effect was one of modesty, sensibility, and a general no-nonsense attitude toward life.

Fashion highlights of the times included separate skirts and blouses. A white blouse was a very important part of the wardrobe for the working woman or student. A short, boxy-styled jacket or coat was very popular, and pockets both real and faux were used for decoration as well as function.

For evening and dress occasions the "bias cut" gowns were sensational. They hugged the body's natural curves and flared beautifully at the bottom. Fabrics were soft as were the colors; higher heels were worn with longer skirts.

Costume jewelry was fashionable (originally brought in vogue by Chanel). Pearls were worn with jumpers and blouses; the twin set (sweater over sweater) was the hallmark of the well brought-up middle class girl.

Cosmetics in natural tones were used more widely and were more skillfully applied than previously. Lipstick was introduced. Cosmetics were carried in a handbag, and lipstick and powder (from the powder compact, then call a flapjack) were applied in public. This was not, however, a practice indulged in by well-mannered girls.

Hats, veils, chenille nets (called snoods; these were like hairnets that pulled the hair back from the front of the face) were fashionable. Many designs were worn perched on the front of the head, often over one eye. A strap at the back held such hats in place. Some women began to wear bright scarves tied under the chin in place of a hat.

"Finally, it was the personal style of certain stars that influenced fashion most of all. Attention to actresses' offstage clothing probably reached its fever pitch with the ensembles created for

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Gloria Swanson. In the 1930s Garbo's slouch hat and Katharine Hepburn's lean, loose trousers, and Joan Crawford's ankle-strap shoes were all trend setters. But few actresses were as eccentric or as influential in their appearance as Marlene Dietrich" (Fashion, a Mirror of History). In 1933, the Parisians were bewildered by her practice of going about in men's clothing. The chief of police tried to run her out of town.

Hemlines in the 1930s went down and down again. By the end of the 1930s, fashion seemed to stand still in the shadow of the impending war.

1940s

World War II caught many people by surprise; for many, the reality of war dictated the fashion they would wear. The average person wore what was appropriate and what was available. Austerity became fashionable.

The Wartime Production Board, a branch of the U. S. Government, issued a directive, L85, which restricted the manufacture of clothing. Ruffles were forbidden. Only one pocket per blouse or shirt was allowed. Hems could be no deeper than 2 inches and the widest part of the hem of a dress could not exceed 72 inches. Hemlines rose and leveled off just below the knee.

In men's clothing, cuffs were eliminated along with vests, two-pant suits, patch pockets, cloth belts, pleats, and jacket backs with pleats. Men were wearing colors that reflected the time. Khaki and other muted colors were popular.

Skirts, blouses, and sweaters were worn by all females. With the fashion industry closed down by the war in Europe, the United States was left to its own designers for fashion direction. The designers turned to the military for inspiration. The Eisenhower jacket made fashion history when it was adopted for civilian use. The shoulders were roomy and comfortable. The "bomber jacket" was based on the Air Corps flying coat made of leather with knit wrist cuffs to keep out the wind. It was usually lined with alpaca fur. The Montgomery beret was the inspiration for hats. Elastic could not be used, so a close fitting hat was the sensible choice.

Women began to wear pants as the practical dress for work in industry. It was not too long before pants were popular outside the workplace as a comfortable casual fashion. Stockings, which were not required under pants, were expensive and usually not available. Eisenhower jackets were popular and were worn with pants or with a skirt and blouse.

Joan Crawford's squared shoulders speak for the time. The shoulder was wide and padded. The fashion was very manly and the fabric was sensible tweed. Suit dresses were very popular and saddle stitching was a favorite trim.

In 1947, a young French designer by the name of Christian Dior launched what he called "The New Look." The war was over, the men had returned home, and The New Look gave women a softer, more feminine look and curve. This look was stylish, elegant, and reflected the opposite

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of wartime restrictions. The hemlines fell to just above the ankle, and skirts were incredibly full. Yards and yards of fabric were used as well as petticoats with crinoline and flounces of lace. The shoulder pad was dropped with a thud and the sloping, soft shoulder replaced the squared, manly look. The bustline was accented; the waistline was high and cinched again. The silhouette for the late '30s through the late '40s was the inverted triangle–broad shoulders and thin hips.

1950s

The new silhouette, an hourglass with an elongated lower half, began in 1947 with Christian Dior's New Look and was going strong in the 1950s. Shoulders were rounded as was the bust; waist nippers (girdles with corset-type waist cinches) were used to make the waist "improbably narrow." The bustline was sometimes padded and sometimes wired bras were worn that gave an unnatural, uplifted appearance. The hips were occasionally padded and the legs hidden under yards of beautiful fabrics. Silks, taffetas, failles in subdued afternoon colors or daytime colors such as aquamarine, powder blue, ice blue, and soft pinks and yellows were used.

Another phenomenon that began to develop in the late '40s went into full bloom in the '50s. The emergence of the "teen-ager" who wanted a fashion separate and away from the adult fashion. The teen-age market was discovered and considered to be very lucrative to the fashion industry as well as to other markets. Seventeen magazine was published along with other youth magazines.

Blue jeans began in the '40s but the teens of the '50s took them and ran with them. They were at first a bit baggy and rolled to the knee. They were worn with a man's shirt many sizes too large with the shirt tails hanging out.

The "tough" crowd, sometimes called "greasers" because of the greasy look to their slicked back hair, was seen in jeans rolled up to the ankle with white socks. White T-shirts with sleeves rolled up and black leather jackets finished off the outfit. Almost always, the back jeans pocket sported a "rat tail" comb.

For school, teen-age girls wore pleated wool skirts with a matching or color coordinated sweater set. Circular skirts with appliques of poodles or telephones were popular with a blouse having a Peter Pan collar and a matching sweater. Saddle shoes with rolled down stockings were a must. The sheath was the big news in the 1950s and in keeping with the times, it was an easy and comfortable style. Mother and daughter dresses were also a big fashion trend. Gloves and hats were very important to the fashionable woman. The two-piece suit of the 1950s for women was different from that of the 1940s. The jacket was short with a flare and a Peter Pan collar with double rows of buttons. The skirt was straight and fairly narrow. The shoulders were a bit on the sloping side and rounded. The square padded shoulders of the 1940s were gone.

The 1950s fashion for men could be summed up in the word–conservative. The trim, quiet look was in vogue. This was a distinct change from the late 1940s bright colors. Subtle and

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subdued tones of blue, brown, and gray took over. The most memorable fashion for men was the 1953 gray flannel suit.

1960s

The 1960s was an incredible decade. It was a time of action, violence, protest, rebellion, experimentation, and counterculture. Dramatic events took place during this decade and dramatic changes in fashion occurred.

The '60s-'70s catered to the youth both in advertising and production in the clothing industry. Teen-agers had money to spend (3.5 billion on apparel in 1965) and enjoyed keeping up with the latest trends. During these years two sets of fashion developed side by side: 1) fashion for the young and 2) fashion for the rest of society.

The "war babies" or Baby Boomers, infants born immediately after the war ended in 1945, were maturing. By 1960 teen-agers were a powerful group. In France, by the 1960s, one-third of the population was under the age of 20. In the United States, fully one-half of the population was under 25. This enormous group of energetic young also had their own minds for fashion and were not dictated by Paris or anyone else.

There were three major movements during the '60s that helped to shape fashion:

First - The Civil Rights Movement sparked an impressive move to ethnic fashion. Blacks and whites alike found interest in the African colors and prints. Afro hairstyles were worn by most blacks, and some whites used perms to get the Afro hairstyle. Some Afros could be measured at 3 inches above the scalp going straight up and straight out. Most were shorter and more natural looking. The expression of the day was "Black is Beautiful."

Second - The Women's Liberation Movement caused women to burn their bras and wear men's clothing. The "unisex" clothing, clothing worn by both sexes, is a result of this movement coupled with the sexual revolution that was taking place at the same time. Girls turned to pants because they preferred the long, clean, "liberating" line. Boys wore embroidered shirts and beads because peasant embroidery and bright colors offered a liberation from the notion of what had been masculine taste for 150 years.

Women's underwear went from wired bras to stretchy elastic bras with little or no support, or no bras at all. The tight 1950s girdles with garters and nylon stockings that ended mid-thigh, were knocked into history by the comfortable one-piece nylon panty hose.

Third - The Peace Movement (or anti-Vietnam War Movement). The Vietnam War was not anywhere as popular or supported as the two world wars had been. This war had the opposite effect on the country; instead of pulling the country together to save resources, the country was pulled apart. The hawks and doves took sides. The teen-agers who revolted against the war and the "established" way of living, working, etc., were called "hippies."

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The hippie dress was a throw back to the beatniks of the 1950s. It was a casual, sometimes sloppy dress. The main focus was self-expression. Whatever you wanted to wear, you wore. Most of the hippies were not teen-agers, although some of their fashions spilled over into the mainstream teen fashions.

The '60s opened with the simple A-line dress. Most dresses were very simple and so accessories were both expressive and bold. The most memorable fashion details of this era would have to be bell bottoms, mini-skirts, and platform shoes. Others, not to be forgotten, include the A-line skirt and dress, boots, and the "Mod Look" brought to the United States by the Beatles and other British musical groups. It was called the "British invasion," but it wasn't a reference to the military but rather an invasion of American culture. The music, fashion, hairstyles, and makeup, to name a few, were transferred across the Atlantic and took the '60s by storm.

The mini-skirt was one fashion that hit early in the '60s. It was the design of Mary Quant from Wales. She is regarded as the mother of the mini-skirt and high boots, shoulder bags, and the "poor boy" sweater. "Pop" and "Mod" were terms also borrowed from the Britons to describe fashion of this time. Eyes were lined with black, shadowed with frosty white, and topped off with a full set of false eyelashes. Lips were painted light to white.

Another word used to describe the '60s is psychedelic. It was at least true for the colors and fabrics of that time. Floral patterns reflected the "flower power" theme of the hippie movement. Daisies, mums, and other flowers adorned everything from fabrics to wallpaper, from busses to vans. The colors were bright and bold.

Twiggy was the top model. She was long and lean, which was a break from the fleshed Edwardian beauty seen in some form up through the 1950s. Some fashion history writers have called this era the "Great Masquerade," and this description fits the time accurately. Everything seemed to go. The length might be mini (mid-thigh), micro-mini (above the thigh), midi (mid-calf), or maxi (to the floor). Even mixing these lengths was fashionable; a mini-skirt with a maxi coat or vest. Maxi coats and sweater coats were really practical in cold climates for the mini-skirt wearer.

Another landmark of the '60s was the pants suit. "Women had attempted pants since the days of Mrs. Bloomer. Chanel, in the 1930s, made them acceptable as sportswear, and during the war years, overalls and jeans were a practical necessity. But trousers for women always had decided overtones of the resort or the assembly line. They had never been totally respectable." (A History of Costume, by Rachel H. Kemper.) It was seen everywhere and was chic, elegant, comfortable, and convenient, not to mention practical.

1970s

Fashions in the '70s were extremely flexible. Most people dressed to identify with their particular lifestyle rather than fit into any fashion mold sent from Paris or anywhere else. Man-made fibers had progressed due to high technology of the day. Polyester that had been developed as early as 1939 and shelved until after the war was a very popular fiber. It was

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blended with natural fibers giving the fabric the advantages of both fiber groups. Some men's suits were fashioned in 100% polyester and marketed as the wash-and-wear suit. It was called the "leisure suit" and had a brief moment in time. It was very casual with buttons down the front, patch pockets, and bell bottoms. It was comfortable and easy to care for, as well as being wrinkle-resistant.

Teen styles were extreme. Pants were worn skin tight; hip hugger pants and skirts were worn with hip belts; a wide bell bottom style was popular in pant legs and sleeves. In the early '70s cuffs on trouser style pants for both men and women were reintroduced. Pant legs got wider and wider and were worn long enough to cover the shoe and scrape the floor. Platform shoes became higher and higher with very chunky heels.

The hippie influence was still seen in bright beads, embroidery on shirts, denim pants and jackets, and tie-dyed fabrics. Long hair was a hot topic, first seen as a sign of rebellion, and later accepted as fashionable "in moderation." Sideburns were worn long; beards and moustaches were popular for both teen-agers and their parents.

Hair for teen-age girls–the longer and straighter, the better. Orange juice and soup cans were recycled into curlers to straighten out hopelessly wavy or curly hair. If the cans didn't work, then girls tried to iron their hair straight. Full bangs were worn long enough to cover the eyebrows but not long enough to merge with the false eyelashes.

1980s

The fitness craze of the late 1970s brought a major change to the athletic clothing industry. Fleece was in; comfort and function were paramount. Men and women hit the gyms, spas, and athletic centers in droves, creating a big market for athletic clothes that were not only functional but attractive and flattering. Lycra in bright colors worn with "leggings" and thick socks pushed down to the ankles in puddles was the preferred fabric for aerobic exercises. The old "gym shoe" was replaced with 100 or more different kinds of specialized sports shoes. Whatever you planned to do, there was a special shoe to do it in.

During the 1980s, many women continued in or joined the work force. In order to be taken seriously by some, women needed a better fashion image at the office. The "power suit" was designed. It was a broad-shouldered lapel jacket worn with a white or light colored blouse (feminine but not too sexy or lacy), and a solid color skirt. Pants were seen as too casual. The colors considered appropriate for this power suit could be navy, black, grey, burgundy but not brown. Pump shoes were appropriate, with heels not too high but not completely flat either.

Colors in women's dresses were very rich; fabrics were fluid and flowing. Rayon, improved by new technology during the '70s, was a very popular fabric. Ramie was a popular natural fabric added to cotton or acrylic for luster. The oversized shirt, sweater, and sweatshirt look was in. Some were huge through the shoulders, bustline, and waist, and narrowed to the thighs. Some tops were worn long and belted. Rock star, Madonna, released a video in 1985 wearing ripped jeans, lace, and a lacy bustier. That launched the camisole craze worn with jeans, pants, or skirts and jackets.

DRESS CODES RESOURCE INFORMATION - PAGE 13

It would be hard to understand the woman of the '80s by looking at the fashions of the time. There were power suits on one hand and very sexy, frivolous fashions on the other. Don't forget the athletic attire and casual at-home clothes. This was the decade when women wanted it all–husband, children, career, and time for self-expression. All of these needs required special clothes.

Shoulders were severely padded in the mid '80s. Shoulder pads appeared in everything—blouses, sweaters, robes, T-shirts, and dresses. Exaggerated lapels and flared jackets were also stylish. Also, a "crest craze" hit, putting crests or emblems on T-shirts, blouses, shoes, belts, and just about anything else. Shirts, sweatshirts, and sweaters were also emblazoned with logos of many different manufacturers as well as popular movie characters. For example, the Superman cape was 'in.' Clothing appeared as free advertising space for many companies not in the clothing market as their main enterprise. Some companies that embraced this new means of advertising were Coca Cola, Pepsi, and McDonald's.

Clothiers that marketed designer labels didn't hide them away on the inside not to be seen but rather embroidered the label, printed it or sewed it on the outside of the garment. People of the '80s seemed to have a fixation with labels–the right kind of labels, that is. Pants in the 1980s reversed from the huge leg of the '70s to an ankle length pegged leg. The latter '80s saw very high waistlines, large yokes, and baggy legs (still pegged at the ankle). Neon or fluorescent colors hit the fashion scene during the latter '80s in everything from T-shirt screen prints, shorts, tennis shoes, athletic wear of all kinds to sunglasses and accessories.

The short tube dress was popular and became very tight and short before the end of the decade. This fashion was only tried out by the very thin and daring. Designer jeans became even more popular and expensive. Those in vogue during this decade were: Calvin Klein, Jordache, Chic, Britannia, Levi Strauss, Gloria Vanderbilt, and Sassoon, just to name a few. The "Guess?" jeans hit store shelves in 1981 and were a big success. They were marketed by brothers from France and were priced around $55. Girbauld, another French jean, cut small in the waist and a little roomier in the rise and legs, then narrowing at the ankle, were giving "Guess?" some more competition by the late '80s. Their price tag? $60-$80. (Levi Strauss would turn over in his grave.)

In Paris, many things began to change. Many haute couture designers began to tap the ready-to-wear market. Ann Klein launched its less expensive Ann Klein II label; Yves St. Laurent and Donna Karan, to name a few, made fortunes giving famous designer names to less expensive but good quality clothes. Another change, this one for the worse, was a result of the AIDS crisis felt around the globe. More than a few venerable designers were taken by this fatal disease. Halston, Angel Estrada, and Perry Ellis were all its victims. Fashion houses in Paris and elsewhere in the world felt the loss severely.

Fashions in the '80s had a great sense of style and freedom. Almost anything worked; pants, skirts of all lengths, flat shoes, and heels reminiscent of the "stiletto" heel of the '50s. Style and simplicity were a continuing presence.

This was the action decade in which fashion became extremely versatile and offered men and women a variety of styles, fabrics, colors, and images. The 1980s was the decade women were in transition. Lifestyles for families were changing, the economy was changing, more women entered and moved up within the work force and personal interests varied.

1990s

As the 1990s were beginning, it was anyone's guess what the fashions would be. Predictions, even when made by the experts, are sometimes wrong. The following predictions were from Vogue, 1990, and Elle, 1990, magazines.

> "There are no rules anymore. One moment, clothes are stark and simple, the next lavishly decorated. Now day is night and night is day - with velvet adding verve to breakfast meetings, and sporty leggings giving dinner jackets a new kick. There's no method to the mania and no manual to get you through.
>
> "There is no universal hem length anymore. Everything is relative. The possibilities are endless. So maybe it was easier in the '50s when everyone had the same twin sweater set and pearls. Even in the psychedelic '60s, the blue jeans and beads offered solace of a uniform. But by the time the '70s faded into the '80s, denim was part of the Ralph Lauren lifestyle, and there was a certain sameness to clothes everywhere. Power suits and Polo play clothes.

"In the fast-paced '90s, the distinguishing feature is personal style. ...trends won't exist as we know intelligence," declares Norma Kamali. Vogue, March 1990

A theme of concern for everyone in the 1990s has been the environment, and it has been taken seriously by many in the fashion industry. From the April 1990 Elle magazine:

> "We've got the greenhouse effect, polluted air, water and soul, not to mention acid rain and extreme natural disasters....There's tons of garbage and no place to put it, and we can kiss the rain forest good-bye if we don't stop its destruction now....Big names in the fashion and design world have also gotten involved in the effort to clean this place up and keep it that way."

Ecological concerns are on everyone's mind and on some designers' clothes. From Body Glove, a swim wear designer, we read a slogan printed right on the collection: "Keep our ocean blue and our water clean." From Katherine Hamnett, a long-time environmentalist, comes the slogan on T-shirts, "Clean up or Die," which pretty much says it all.

At the couture showings in Paris and London for 1990, the silhouette seemed to be in "mid-change," the exaggerated shoulders of the '80s was softening, but a new silhouette had not emerged. The look was softer and more feminine. Even men's clothing saw pastel colors, and in New York, floral patterns for men were the latest.

- Materials adapted from the Fashion Strategies curriculum, Utah State Office of Education.

APPROPRIAT

Name ______________________________

ACTIVITY OR OCCASION: ______________

APPROPRIATE DRESS CHOICES:
(PICTURES)

WHAT I HAVE IN MY WARDROBE I COULD WEAR:

____

____

____

PROPRIATE DRESS CHOICES

Period ____________ Date ______________________________

ACTIVITY OR OCCASION: ______________________

APPROPRIATE DRESS CHOICES:
(PICTURES)

LD WEAR: WHAT I HAVE IN MY WARDROBE I COULD WEAR:

______________ ____

______________ ____

______________ ____

Name ______________________________ Period _____ Date ________________

DRESS DIFFERENTLY FOR A DAY

Directions: Record the reactions of other people as the day goes by. Try to do this as nonchalantly as possible so they are not aware that you are watching for and recording their reaction. At the end of the day, record your reactions.

Person:	Reaction:

Your reaction to the day: ____

____

What you learned today: ____

____

DYNAMICS OF CLOTHING II

UNIT I: *PSYCHOLOGICAL ASPECTS OF CLOTHING*

TOPIC B: **SELF-CONCEPT AND SELF-IMAGE**

OBJECTIVE: Students will explore the role self-concept and/or self-image plays on clothing choices.

CONCEPT: How one dresses and presents himself/herself is directly related to his/her self-concept and self-image. Self-image controls the self-concept, and self-concept is reflected by one's personal image. In turn, one's personal image has a direct effect on one's self-concept. It is important for students to understand the components of this cycle and analyze what's behind their personal image.

COMPETENCIES:

1. Evaluate the role self-concept plays in clothing choices.
2. Analyze the impact of one's personal image on his/her self-concept.

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. Self-Concept Role	Copies of student activity guides (II-I-34 and II-I-35)
2. Visit the Mall	Copies of student activity guide (II-I-37)

ACTIVITIES/OPTIONS

Option 1: **Self-Concept Role**
Using the teacher background information, THE ROLE OF SELF-CONCEPT IN CLOTHING CHOICES as a guide, present the basic concepts identified to the students. Then have the students complete the student activity guide, SELF-CONCEPT/SELF-IMAGE and/or SELF-IMAGE ANALYSIS.

Option 2: **Visit the Mall**
Have the students go to the mall, grocery store, or some other public place and observe people for a period of time. Have them evaluate the self-concept of the people observed, judging by the way they dress, walk, grooming habits, etc. The students can use the observation guide provided in the resource section of this unit. Or the teacher could video people at a mall or public place and use the video for evaluation.

NOTE: See the Dynamics of Clothing I curriculum for activities on this topic. Any activities not used in that class can be used here.

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RESOURCES

Books or Articles

Storm, Penny, Functions of Dress: Tool of Culture and the Individual, Florida International University, Prentice-Hall, Inc., Englewood Cliffs, NJ 07632.

Roach, Mary Ellen, Adolescent Dress, Journal of Home Economics, Vol. 61, #9, Nov. 1969.

Lind, Charlene, Ph.D., The Social Importance of Clothing for Infants, Children, and Adolescents, Family Perspective, Center for Studies of the Family, Brigham Young University, College of Family, Home, Social Science, Vol. 25, Nov. 4, 1991.

Litrell, M.A.; Litrell, Damhorst; Litrell, M.L.; and Eicher, J.B., Clothing Interests, Adolescence, Michigan State University, Spring 1990.

Videos

Know Yourself: The Secret of Self-Esteem, Sunburst Communications, P.O. Box 40, Pleasantville, NY 10570-0040. 1-800-431-1934. Catalog No. 2376-YH.

Posters

Valuing Yourself: 22 Ways to Develop Self-Esteem, Nasco, P.O. Box 901, Fort Atkinson, WI 53538-0901. 1-800-558-9595. Catalog No. WA13421H. A set of 22 11" x 14" posters depicting ways to build positive self-esteem.

Software

Improving Your Self-Concept, Home Economics School Service, P.O. Box 802, Culver City, CA 90232-0802. 1-800-421-4246. Catalog No. MCE166M3-82 for IBM/PC format. This interactive program prompts students to examine their ambitions and relationships. Printed feedback is available for each section.

Other

Building a Positive Self-Concept: 113 Activities for Adolescents, Nasco, P.O. Box 901, Fort Atkinson, WI 53538-0901. 1-800-558-9595. Catalog No. WA15187H.

EVALUATION/TEST QUESTIONS

1. Evaluate the role self-concept plays on clothing choices.

1. Our self-concept doesn't have any affect on the way we dress.
   A. True
   B.* False

2. Match the following terms with the correct definition:

A. Self-concept	_B__	The way you see yourself; the outer self.
B. Self-image	_C__	The kind of person you perceive yourself to be; the inner self
C. Self-esteem	_A__	The way you feel about yourself; the total self.

3. Which of the following statements is true?
   A.* Our self-concept comes from our self-image and our self-esteem.
   B. Our self-image comes from our self-concept and our self-esteem.
   C. Our self-esteem comes from our self-concept and our self-image.

4. Our clothing choices generally reflect our _____________.
   A. Self-esteem
   B.* Self-image
   C. Self-concept.

5. Our self-concept is whatever it is and there's nothing we can do about it.
   A. True
   B.* False

2. Analyze the impact of one's personal image on his/her self-concept.

1. If we feel good about our personal image, we tend to be more self-confident.
   A.* True
   B. False

2. Our own self-image isn't as important as what other people think.
   A. True
   B.* False

3. We play an important part in determining our own self-concept.
   A.* True
   B. False

THE ROLE OF SELF-CONCEPT ON CLOTHING DECISIONS

The way you feel about yourself is called self-concept; the way you see yourself is called self-image. Your self-concept is an assessment of your psychological self; your self-image is an assessment of your physical self. However, our self-concepts and/or self-images frequently determine the clothes that we choose to wear. At the same time, the clothes we wear may influence the way we feel about ourselves. Throughout our lifetime, our self-concept continues to evolve and to be modified as we change and get to know ourselves better.

The Outer Self (Self-Image)
One aspect of self-image is related to how you see your physical self, your size, your attractive features, and those features you feel are less attractive. Each person is born with certain unchangeable physical characteristics–bone structure, shapes of body features (nose, mouth, eyes, and ears) and personal coloration. Your choices about changeable attributes like clothing, and how well these choices complement your features and style, reflect your self-concept. If your self-image is not realistic, others will receive a negative message from your appearance. For example, you have probably seen a very thin person wearing skin-tight clothing that makes him/her look even thinner. Such a person probably sees himself/herself as being overweight. Or, you may have observed a chubby person poured into tight pants that outline every bulge. Have you wondered how a person could appear in public in such an unbecoming garment? The person may not perceive himself/herself as overweight; instead his/her self-image allows him/her to believe that he/she appears slim, trim, and attractive in the pants.

What is considered to be the "ideal" body or a handsome/beautiful individual changes from one period to another and from one country to another. Very few people, if any, have all the so-called "ideal" features.

Can you think of anyone who you feel is truly a perfectly handsome or beautiful individual? If you analyze the person's looks, you will probably find that he or she is attractive because of a combination of good grooming practices, wearing becoming clothes, and assuming a pleasant manner. Most movie stars and models use knowledge of hair styling and care, other grooming aids, color, line, and design to make their natural features look closer to the current "ideal" physical features.

Individuals who have anorexia nervosa have a very distorted view of their body size in relation to the "ideal, thin body." Victims of this illness starve themselves into drastic weight losses and ultimately starve to death if the disease goes untreated.

Researchers have found that persons with bulimia–pattern of binge eating followed by self-induced vomiting–overestimate body size to an even greater degree than do anorexics. These two eating disorders are most frequently found in women from 12 to 25 years of age, most of them from middle-class and upper-class homes. However, boys as well as adults of either sex can also be affected.

THE ROLE OF SELF-CONCEPT ON CLOTHING DECISIONS - PAGE 2

Why do these individuals voluntarily starve themselves? Basically their self-concept is so low that their self-image is severely distorted. Their desire to gain acceptance is so hinged on physical appearance that they lose all sense of logic in relation to their bodies.

The Inner Self (Self-Esteem)

Another part of self-concept is "the sort of person I am" or a sense of inner self. This is known as self-esteem. We visualize ourselves as having certain characteristic behavior. Our behavior changes as frequently as do our roles in life and the clothing we choose to fit those roles. Clothing also reflects our different moods and emotions. Our favorite garments are comfortable–psychologically as well as physically. Psychological comfort or lack of it may be closely related to how well our garments express the self-esteem that each of us has.

The teen years are partly spent discovering one's own identity and individuality. This is a time when individuals enjoy experimenting with different types of clothing, hairstyles, accessories, and makeup. Through trial and error, you accept or reject styles, colors, and ideas. This experimentation plays an important role in the decisions you make about yourself and in developing your own identity and individuality.

At the same time that you are striving to achieve your identity as an individual, you do not want to be too different from your friends. Most people want the security of identifying with a group or with people they admire. Conformity in personal appearance is a way of expressing and fulfilling this need.

However, no one stays the same forever. As you change, you have experiences that affect how you see yourself and feel about yourself. What you liked to wear when you were younger may not be what you like today. And, as an adult, your clothing choices will continue to change to reflect your self-concept.

Some of our physical features cannot be changed, such as our height, bone structure, foot size, or eye color. Instead of being unhappy or uncomfortable about these unchangeable features, capitalize on the features you have and make the most of them.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture.

Name ______________________________ Period ______ Date ________________

SELF-CONCEPT/SELF-IMAGE

1. Using pictures from magazines or your own sketches, write your own captions to describe yourself physically. (This is your self-image.)

____
____
____
____

2. In the description or captions you wrote, circle the words or phrases that describe your physical features rather than your clothing.

3. Now, put a star (*) by the words or phrases you have circled that you could change if you want to. Are there any you would like to change? ______Yes ______No If so, what are they?

____
____

4. Continue by adding more pictures and captions, illustrating your entire self and describing yourself as a person. (This is your self-concept.)

____
____
____

5. Underline the words or phrases that describe your best self.

6. Cross out the words or phrases of things you don't like about yourself.

7. Think about the way you dress. In what ways does your image reflect your self-concept? Be specific.

____
____

Name ______________________________ Period ______ Date ________________

SELF-IMAGE ANALYSIS

How do you see yourself? Sometimes our self-image is not realistic because we do not know how to evaluate it. This activity can help you clarify how you look to yourself. Study each of the statements in columns 1, 2, 3, and 4 below. With a pencil, mark one dot in each column in the square you think best describes you. Then connect the dots to form a line as in the example shown by the instructor.

1	2	3	4
Very attractive features	Very good physical condition	Well-groomed appearance	Very positive feelings about appearance
Reasonably attractive features	Reasonably good physical condition	Fairly well-groomed	Fairly good feeling about appearance
Average looking features	Not in very good physical condition	Not always well-groomed	Somewhat unhappy with my appearance
Unattractive features	Body in poor physical condition	Little care in grooming/ appearance	Very unhappy about my appearance

Take a look at the line you drew. What does it tell you about yourself? You might find it interesting and helpful to do a "reality check" by having a few trusted friends your age and one or two adults use the same chart and evaluate your image.

Is there a great difference between your own evaluation and those of others who evaluate you using the same chart? Such a gap can indicate that your nonverbal signals are communicating a different message than the one you want to project.

Are you satisfied with your results as well as those of the others? __________
If not, list what you can do to feel more comfortable about your appearance and the message it communicates. Did you find any of the results particularly pleasing? _____ If so, what? ____

Name ______________________________ Period ______ Date _______________

SELF-IMAGE ANALYSIS - TEACHER EXAMPLE

How do you see yourself? Sometimes our self-image is not realistic because we do not know how to evaluate it. This activity can help you clarify how you look to yourself. Study each of the statements in columns 1, 2, 3, and 4 below. With a pencil, mark one dot in each column in the square you think best describes you. Then connect the dots to form a line as in the example shown by the instructor.

1	2	3	4
Very attractive features	Very good physical condition	Well-groomed appearance	Very positive feelings about appearance
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Unattractive features	Body in poor physical condition	Little care in grooming/ appearance	Very unhappy about my appearance

Take a look at the line you drew. What does it tell you about yourself? You might find it interesting and helpful to do a "reality check" by having a few trusted friends your age and one or two adults use the same chart and evaluate your image.

Is there a great difference between your own evaluation and those of others who evaluate you using the same chart? Such a gap can indicate that your nonverbal signals are communicating a different message than the one you want to project.

Are you satisfied with your results as well as those of the others? _________
If not, list what you can do to feel more comfortable about your appearance and the message it communicates. Did you find any of the results particularly pleasing?
If so, what?

Name ______________________________ Period ______ Date _______________

VISIT THE MALL

Directions: Go to the mall, grocery store, or some other public place and observe people for a period of time. Evaluate the self-concept of the people you observe, judging by the way they dress, walk, grooming habits, etc. Use the following scale, with "1" being low self-concept and "10" being high self-concept. Briefly describe each person observed and evaluated.

Person #1: 1 2 3 4 5 6 7 8 9 10

____

Person #2: 1 2 3 4 5 6 7 8 9 10

____

Person #3: 1 2 3 4 5 6 7 8 9 10

____

Person #4: 1 2 3 4 5 6 7 8 9 10

____

Person #5: 1 2 3 4 5 6 7 8 9 10

____

Person #6: 1 2 3 4 5 6 7 8 9 10

____

Person #7: 1 2 3 4 5 6 7 8 9 10

____

Person #8: 1 2 3 4 5 6 7 8 9 10

____

Person #9: 1 2 3 4 5 6 7 8 9 10

____

Person #10: 1 2 3 4 5 6 7 8 9 10

____

Person #11: 1 2 3 4 5 6 7 8 9 10

____

Person #12: 1 2 3 4 5 6 7 8 9 10

____

DYNAMICS OF CLOTHING II

UNIT II: ***WARDROBE SELECTIONS***

TOPIC A: **WARDROBE CONSUMERISM**

OBJECTIVE: Students will be able to use effective consumer skills when planning for and/or purchasing clothing articles.

CONCEPT: Having the skills to be a smart consumer is important for individuals and families. Students need to know how to be smart shoppers and realize maximum benefits from their clothing dollars.

COMPETENCIES:

1. Analyze personal clothing expenditures.
2. Review quality indicators of clothing.
3. Review smart consumer techniques.
4. Describe the pricing structure of clothing.
5. Differentiate between various types of clothing labels.
6. Decipher what advertisements really say.
7. Differentiate between various kinds of sales.

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. They Cost How Much?	Copies of student activity guide (II-II-8) Clothing catalogs
2. Characteristics of Clothing Quality	Materials from Dynamics of Clothing I, Unit VI, Topic A, Options 1 through 5.
3. What's Behind the Price Tag?	Overhead transparencies (II-II-12 and II-II-13) Copies of student activity guide (II-II-14 and II-II-15)
4. Clothing Labels	Materials from Dynamics of Clothing I curriculum, Unit VI, Topic A, Option 9 Copies of student activity guide (II-II-18 and II-II-19) Clothing labels from garments
5. What Advertising Really Tells You	Ads from magazines and newspapers Copies of student activity guide (II-II-22 and II-II-23)
6. Sales! Sales! and More Sales!	Newspapers from various times of year for various types of sales Copies of student activity guide (II-II-26)
7. Clothing: An Intelligent Buyer's Guide Video	Video Video player

Optional: If the teacher is going to use these activities as self-instruction packets, copies of the teacher background information will need to be provided also.

ACTIVITIES/OPTIONS

NOTE: **The activities/options in this topic can be used as a unit or as self-instruction lessons/learning packets. They would be ideal for use on "substitute" days and to fill in between projects.**

Option 1: **They Cost How Much?**

Have students analyze the costs of the clothing and accessories they are wearing today, using catalogs as a guide for costs. Be sure to have the students include everything they are wearing, including underwear. A student activity guide has been provided for this option.

The teacher will need to have some catalogs available, such as Penney's, Land's End, Eddie Bauer, current newspaper inserts, etc.

Option 2: **Characteristics of Clothing Quality**

Review the materials provided in Dynamics of Clothing I, Unit VI, Topic A: Effective Consumer Skills, Options 1 through 5. In addition, the following concepts could be presented:

- Four characteristics to consider when checking for garment quality:

- Comfort	Depends on the weather and the situation in which the clothing will be worn.
- Appearance	Important if buyer is interested in current styles and fads.
- Durability	Is a consideration if the item will be worn often or handed down to other family members.
- Care	Is important because it takes into consideration your time and money.

- When buying a garment that will be worn often, the most important thing to consider is durability.
- The most important thing to look for when shopping for clothes is quality.
- Sales are not always the best way to choose new clothes.

Option 3: **What's Behind the Price Tag?**

Using the teacher background information, WHAT'S BEHIND THE PRICE TAG? as a guide, introduce the students to apparel manufacturing, retailing costs, and how these costs determine the price of garments. Then have the students complete the student activity guide by the same title. Overhead transparencies of pages II-II-12 and II-II-13 can be used to illustrate how prices are determined.

Option 4: **Clothing Labels**

Using the teacher background information, CLOTHING LABELS as a guide, explain the different types of clothing labels, why they are used, and what the consumer can learn by reading the labels. Refer to Unit VI Topic A,

◆◆◆

ACTIVITIES/OPTIONS

Option 9 of the Dynamics of Clothing I curriculum. Have the students complete the corresponding student activity guide. The teacher could have some clothing labels on hand to use as examples and/or ask the students to bring in some labels to study.

Option 5: **What Advertising Really Tells You**
Read the teacher background information provided and discuss the different types of advertising. The teacher will need to have some ads on hand to use as illustration during the discussion. A corresponding student activity guide is provided for use if desired.

Option 6: **Sales! Sales! and More Sales!**
Using the teacher background information as a guide, identify the various types of sales used by stores and what the meaning of each type is. The teacher will want to have some newspapers on hand from various times of the year and ready for the students to use as they look for different types of sales. A student activity guide is provided that requires the students to do some shopping and comparison.

Option 7: **Clothing: An Intelligent Buyer's Guide Video**
Show the video, Clothing: An Intelligent Buyer's Guide, from The Learning Seed.

RESOURCES

Video: Clothing: An Intelligent Buyer's Guide, The Learning Seed, 330 Telser Road, Lake Zurich, IL 60047. 1-800-634-4941. Catalog No. 134-S89. A video that covers how to "read" a clothing store, what to look for in a garment, how to inspect and test clothing before buying, how to judge fabric by fiber content and "hand," and how to make the best purchases. 24 minutes.

Posters: 20 Tips for Buying Clothing, J. Weston Walch, Publisher, P.O. Box 658, Portland, ME 04104. 1-800-341-6094. Catalog No. JWW603-82. A series of 20 11" x 14" posters with graphics and brief commentaries to remind shoppers of what they should look for when they select and purchase clothing.

◆◆

ASSESSMENT/EVALUATION QUESTIONS

COMPETENCIES:

1. Analyze personal clothing expenditures.

2. Review quality indicators of clothing.

1. Match the following quality indicators with the correct description.

A. Comfort

B. Appearance

C. Durability

D. Care

_D__ Is important because it takes into consideration your time and money.

_C__ Is a consideration if the item will be worn often or handed down to other family members.

_A__ Depends on the weather and the situation in which one will wear the clothing.

_B__ Can be important if one is interested in current styles and fads.

2. When buying a garment that will be worn often, what is the most important thing to consider?
A. Appearance
B. Price
C.* Durability
D. Size

3. What is the most important thing to look for when shopping for clothes?
A. Price
B. Manufacturer's brand name
C.* Quality
D. Silhouette

3. Review smart consumer techniques.

See Unit IV Topic A of the Dynamics of Clothing I curriculum for assessment questions.

◆◆◆

ASSESSMENT/EVALUATION QUESTIONS

4. Describe the pricing structure of clothing.

1. What is the wholesale price of a piece of clothing?
   A. The price charged to the customer in the store
   B.* The price the store paid for the product
   C. The cost of producing the article without any markup

2. What is the retail price of a piece of clothing?
   A.* The price charged to the customer in the store
   B. The price the store paid for the product
   C. The cost of producing the article without any markup

3. What is the cost of manufacturing?
   A. The price charged to the customer in the store
   B. The price the store paid for the product
   C.* The cost of producing the article without any markup

5. Differentiate between various types of clothing labels.

1. Permanent care labels are usually attached:
   Where? ____in the neckline____ How? ___sewn in_________

2. Garment care instructions that tell you NOT to do something are called __negative_______ instructions.

3. How is a permanent care label different from a hang tag?
   - Sewn into the garment (hang tag is attached by string, etc.)

4. How is the information on a permanent care label different from that on a hang tag?
   - Gives care instructions vs. brand promotion, size, etc.

6. Decipher what advertisements really say.

1. The two basic types of advertising are:
   - Institutional and product

2. Describe institutional advertising.
   - Tries to present the store as a desirable place to shop

3. Describe product advertising.
   - Stresses the characteristics of individual products

◆◆◆

ASSESSMENT/EVALUATION QUESTIONS

4. There are no laws to protect consumers, only the merchandisers.
   A. True
   B.* False

5. Who compiles the suggested retail price list?
   A. The store
   B. The manufacturer's representative and the store buyer
   C.* The manufacturer

6. When a store advertises a product for sale and quotes a "regular price" for comparison, they can use any price they want to entice the buyer to come in the store.
   A. True
   B.* False

7. Differentiate between various kinds of sales.

1. The best way to choose new clothes is to buy whatever is on sale.
   A. True
   B.* False

2. Match the following kinds of sales with the correct description.

A. Promotional	_C__	Sales designed to move merchandise that is going out of season or out of style.
B. Special Purchase	_A__	Sales offered on regularly stocked clothing items at reduced prices for limited periods of time.
C. Clearance	_D__	Sales where regularly stocked items of clothing are offered for a percentage off the original price.
D.* Percent Off	_B__	Sales that represent special offers by manufacturers to clothing stores.

3. A coat you want is regularly priced at $100. You see an ad that says everything in the store is 33 percent off. How much would the coat cost on this sale?
   A.* $66.66
   B. $33.33
   C. $44.44

Name ______________________________ Period ________ Date ____________________

THEY COST HOW MUCH?

Directions: List each item of clothing and accessories you are wearing today, including underwear. In the column on the right, write the cost of each item, rounding the numbers off to the nearest dollar. When complete, total the amounts to find the cost of what you are wearing today.

1. ____ $____________
2. ____ $____________
3. ____ $____________
4. ____ $____________
5. ____ $____________
6. ____ $____________
7. ____ $____________
8. ____ $____________
9. ____ $____________
10. ____ $____________
11. ____ $____________
12. ____ $____________
13. ____ $____________
14. ____ $____________
15. ____ $____________
16. ____ $____________

Total $____________

WHAT'S BEHIND A PRICE TAG?

Commercial production of any garment includes three (3) processes: 1) designing, 2) manufacturing, and 3) selling the garment to retailers. At least twice a year a manufacturer's collection or line of garments is shown in a market city such as Chicago, Dallas, New York, or Los Angeles. Buyers from retail stores in towns and cities everywhere in the United States go to the shows and place orders for their individual stores. Garments that are ordered in insufficient numbers are dropped from the manufacturers' production lines. The price that retailers pay for garments purchased from manufacturers is called the wholesale price. Each manufacturer bases wholesale prices on the cost of producing a dozen of the same garment.

Wholesale Cost

The final cost of a garment is based on two (2) costing processes: 1) precost and 2) final cost. The precost estimate is made before a garment is included in the manufacturer's line. The designer keeps a record of the cost of all materials used in making each garment design. Next the designer or someone in the company's costing department uses that worksheet to estimate the wholesale cost of the particular garment. Finally, it is decided whether the garment will fit into the manufacturer's price structure. Each manufacturing company sets a price range for their merchandise (low, medium, or high) that consumers learn to recognize. Often price creates demand for a particular manufacturer's line.

The final costing process is an exact calculation of the cost of the garment. Final cost is calculated by the costing department. A detailed cost analysis sheet is made for each garment in the manufacturer's line. (An example of a cost sheet is shown on pages II-II-12 and 13.) The final cost is calculated using the designer's worksheet, an actual sample of the garment, and a list of the production steps (labor) necessary to produce the garment.

The cost sheet information includes:

1. **Fabric.** The total yardage of each fabric used in a garment is multiplied by the cost per yard for each fabric. Costs of the individual fabrics used are added to find the total cost of all fabrics.

2. **Trimmings.** The exact cost of each trim used is determined, then the total cost for all trims is figured.

3. **Labor.** Garments may be made by the manufacturer or sent out to a specialized factory either in the United States or a foreign country. Production directors decide where the garments can be manufactured best and at least expense.

4. **Patterns, grading, and marking.** Patterns must be made from the original design, graded to the size range produced by the manufacturer (for example, misses or

WHAT'S BEHIND A PRICE TAG? - Page 2

juniors), and marked with information about how to construct the garment. Making, grading, and marking of patterns may be done by the manufacturer or by a pattern service. In either case, the total cost is divided by the number of units (garments) that will be cut to determine the cost per garment.

5. **Cutting.** Cost for cutting is figured on the number of garments to be cut, usually in dozen lots. If fabric cutting is done by the manufacturer, the cost is based on the cutter's hourly wage multiplied by the number of hours needed to cut all garments in the particular style. Sometimes cutting is contracted out and the contractor's fee is included.

6. **Construction.** In some companies, the cost of each operation needed to make a garment is determined, and the cost of the individual operations are added together. In other companies, the average time needed to make one garment is multiplied by the hourly wage paid to the workers.

7. **Trucking or air freight.** The cost of shipping the completed garments to the retail store is also included in the manufacturer's cost.

8. **Wholesale pricing.** This is based on the cost of labor, materials, and markup. Markup includes a sales commission to the manufacturer's sales representative (usually 7 to 10 percent); terms (a discount to retail stores of about 8 percent for paying bills early); overhead (daily operating costs such as rent, running machinery, utilities, advertising, salaries, markdowns of leftover fabric and garments); shortages (theft or misplacement of inventory that cannot be explained); and profit.

Most companies add a markup of 40 to 50 percent to the total cost of manufacturing a garment. The total of manufacturing costs plus markup is the wholesale price that is quoted to retailers. In the case of the jacket in the sample cost sheet, the manufacturer might add a 50 percent markup of about $17 to the wholesale cost of $33.73, making a total *wholesale price* of approximately $50.

Retail Cost

Buyers for retail stores place orders from many different manufacturers whose lines are carried by their stores. The selling prices of all garments to consumers includes an additional *retail* markup. The retailer's markup may be as much as 100 percent of the wholesale price of a garment. A jacket that costs the retailer $50 may be sold to the consumer at $100.

The retail store markup must cover both the store's operating expenses and profit. Store expenses include salaries, sales promotion, and overhead (rent, utilities, store maintenance, and services offered). All expenses are averaged to determine markup

WHAT'S BEHIND A PRICE TAG? - PAGE 3

per item. The difference in overhead cost is the reason that the same or a very similar garment may be sold at different prices from one store to another.

Before purchasing a garment, answer these questions:

- Is the price fair? (Remember that both the manufacturer and the retailer have to make a profit to stay in business.)
- Does the quality of the garment justify the price?
- Does the use I plan to make of the garment justify the price?
- Can I buy this garment or a similar one at a lower price elsewhere? (Other possibilities include making the garment at home, waiting until it goes on sale, and shopping around in different kinds of stores or at sources such as garage sales and thrift shops.)

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture

SAMPLE MANUFACTURER'S COST SHEET
(Wholesale Unit Cost for a Jacket)

	Amount	Percent of Wholesale Price
Direct Costs		
Fabric: 2.5 yards @ $3.48	$ 8.70	25%
Trimmings	1.00	3%
Labor	7.35	22%
Total Direct Costs	$17.05	50%
Indirect Costs		
Design and merchandising: Designer salaries, sample fabrics, cost of samples	$ 3.00	9%
General administrative overhead: Salaries, rent, utilities, insurance	3.67	11%
Sales commission	2.67	8%
Trade discount	2.67	8%
Markdown allowance, promotion, or other service to retailers	1.68	5%
Shortages	.67	2%
Total Indirect Costs	$14.36	43%
Total Costs	**$31.41**	**93%**
Taxes	$ 1.16	3.5%
Profit	1.16	3.5%
Wholesale Cost of Jacket	**$33.73**	**100%**

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

SAMPLE RETAILER'S COST SHEET

(Retail Price for a Jacket)

	Approximate Cost Per Item	Approximate % of Price
Wholesale price to retailer	$50.00	50%
Allowance for markdowns (averaged among all garments in stock)	5.00	5%
Allowance for shortages and theft (averaged among all garments in stock)	2.00	2%
Salaries and expenses (averaged per garment):		
Sales persons	6.00	6%
Merchandising, buying	5.00	5%
Clerical and stock room	3.00	3%
Advertising, display, promotion	6.00	6%
Administrative	8.00	8%
Employee fringe benefits	2.00	2%
Overhead (averaged per garment):	9.00	9%
Total	$96.00	96%
Taxes	2.00	2%
Profits	2.00	2%
Selling price will be:	$100.00	100%
Markup is:	$ 50.00	50%

Name ______________________________ Period _______ Date ___________________

WHAT'S BEHIND A PRICE TAG? - SIDE A

Directions: This following activity is designed to help you learn to judge the fairness of the price on a particular garment. Complete the following items.

A. In a store or catalog, select a garment that you would really like to own. Write the retail price here: _________________

B. Fill in the cost worksheet provided. Estimate the cost of fabric, trim, and notions by checking pattern books to find out how much fabric is needed and what notions (buttons, zipper, thread) are required to make the garment. Then use prices for similar fabric, trim, and notions found in your local stores.

Labor costs will vary from one community to another. Use the wage rate you think should be paid per hour for making this garment: $3.00 per hour; $3.50 per hour; $4.00 per hour; or ____________. Estimate how many hours it would take to make the garment and multiply by the cost per hour.

Consider any additional costs involved in making the garment and record them under "other" on the worksheet. Other costs might include gas used for shopping, or shipping and handling charges if the items are to be ordered and shipped from a distant location.

C. Compare the cost of the same or a similar garment at two other stores and in a catalog or another catalog:

Cost of garment from original garment source (__________________) $ ___________
name of store/catalog

Cost of making the garment is: $ ___________

Cost of garment from 2nd source (__________________) $ ___________
name of store/catalog

Cost of garment from 3rd source (__________________) $ ___________
name of store/catalog

D. After you have compared the costs of acquiring the garment you would like to have from several sources:

What is your decision? ____

Explain why you made this decision: ________________________________
____
____

WHAT'S BEHIND A PRICE TAG? - SIDE B

Estimate of cost to make the garment you would like to have:

Kind of garment: ______________________________

Item		**Cost**
Fabrics:	A. ______ yds at $_____ per yard	________________
	B. ______ yds at $_____ per yard	________________
Trim:	A. ______ yds at $_____ per yard	________________
	B. ______ yds at $_____ per yard	________________
Notions:	Thread ________________________	________________
	Buttons _______________________	________________
	Zipper ________________________	________________
	Other _________________________	________________
Labor:	______ hours at $_____ per hour	________________
Other:	______________________________	________________
	Total Cost	________________

CLOTHING LABELS

Labels are a source of information about the garment for the consumer. They are designed to provide information that will protect the consumer from the use of fraudulent fibers and care disasters. Many times they also identify the manufacturer or give other information. (Refer to Unit VI Topic A, Option 9 of the Dynamics of Clothing I curriculum.) Some of the types of labels found on garments are described below.

BRAND NAMES

The goal of all manufacturers is to establish their own brands in such a way that consumers will prefer them over other brands of similar products. Retailers will often purchase specific brand name merchandise for their individual stores because they are sure of selling it.

PRIVATE BRAND LABELS

Many clothing manufacturers are commissioned to make garments for large department and chain stores that wish to sell the garments under their own brand or private label. They may put one store name on everything they make or use different names for each line. For example, most hosiery producers manufacture both their own brand and an unbranded line for a retailer. The customer usually does not know the manufacturing source of private brand items.

DESIGNER LABELS

Until the 1940s, when France fell to Germany during World War II, the world center of fashion was Paris. During the war years, it wasn't possible for Paris to retain leadership of fashion, and manufacturers, retailers, and consumers discovered that there were excellent fashion designers in the United States. Although Paris has regained fashion stature since the war, American designers have kept and increased their worldwide leadership. Lord and Taylor, a major fashion store based in New York, was among the first to establish a policy of promoting the names and work of American designers. Today there are many American fashion designers. Some of their names are well known to the public and are featured on garment labels. Other designers work behind the scenes and design clothing that will carry a manufacturer's name or brand name.

A few designers own, in whole or in part, the companies and labels that bear their names. Some of these designers are Gloria Vanderbilt, Calvin Klein, Bill Blass, Laura Ashley, Ralph Lauren, and Liz Claiborne. The garments produced by designer-owned firms are usually very high-priced. However, some designer names also appear on lower-priced lines. Designers may "license" the use of their names on jeans, sunglasses, jewelry, perfume, scarves, and even household linens. For example, designer jeans are often manufactured by companies that pay for the right to use the designer's name on their labels.

CLOTHING LABELS - PAGE 2

UNION LABELS

If the garment is made by people who belong to a union, a label with the name of the union is often found in the side seam. An example is the International Ladies Garment Workers Union (ILGWU), which was founded in 1900 to improve working conditions for workers in the women's apparel industry. The ILGWU has been a model that others have followed.

COUNTRY WHERE MANUFACTURED

Some manufacturers in the United States have all or some steps in the manufacturing of their line done in a foreign country for the purposes of cutting labor costs. The United States also imports ready-to-wear clothing that is totally produced in foreign countries. These clothes may be cheaper or may be unique and especially desirable—Scottish cashmere sweaters and English tweeds, for example. Currently, there is a move in the apparel manufacturing industry to specifically label clothing made in the United States.

HANG TAGS

Hang tags are larger, more colorful, and easier to locate than the sewn-in labels attached inside a garment. A potential customer may be attracted to one specific garment on a rack of many garments simply by seeing and reading the hang tag.

Frequently a hang tag will supply information beyond what is required by law. This can aid the consumer in choosing and caring for garments. Examples of this additional information are:

- **Guaranteed performance labeling.** The manufacturer sets standards for quality and performance of the product and sees that the quality is maintained.

- **Wear-dated programs.** Some garments carry a "wear-dated" tag that means the garment is guaranteed for a specific time under normal wear conditions. If it doesn't survive, the item can be returned (with the tags and the sales receipt) for a refund or replacement.

- **Licensed trademark programs.** Textile manufacturing processes can be licensed by the investor and let out for use by other companies. The term "licensed trade mark" or a symbol ® or ™ appears on a label, it indicates that the fiber, fabric, or finish has been produced under quality control conditions regulated both by the original manufacturer and by any other manufacturer using the license.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture

Name ____________________ Period __________ Date ____________

CLOTHING LABELS

Directions: Complete the activities as described.

1. Look in your wardrobe for one type of apparel of which you have several items, such as T-shirts, jeans, shirts, or blouses. Look for the manufacturer's label and size label in each item. Compare three different brands for fit, recording the information below:

   Type of apparel used for comparison: ____________________

	Name of Manufacturer	Size	Fit (Good, tight, loose, etc.)
Garment A:			
Garment B:			
Garment C:			

   Which garment fits best? ______ Why do you think this is? ____________________

2. What is one of your favorite brands of clothing? ____________________

   Why? ____________________

   What is one of your least favorite brands of clothing? ____________________

   Why? ____________________

   Look at a private brand label in article of clothing.

   What brand is it? ______________

   Who actually manufacturers the garment? ____________________

3. Find an example of each of the following hang tags and record what each says:

   Guaranteed performance label: ____________________

   Brand: ______________ Type of garment: ______________

   Wear-dated program label: ____________________

   Brand: ______________ Type of garment: ______________

   Licensed trademark: ____________________

   Brand: ______________ Type of garment: ______________

   Consumer information: ____________________

   Brand: ______________ Type of garment: ______________

CLOTHING LABELS - PAGE 2

4. Look at some clothing labels to see where the garments were manufactured. List some of the countries below:

5. Look through some magazines and/or newspapers for ads promoting designer clothes. Attach the ads for five (5) different designers to this paper.

WHAT ADVERTISING REALLY TELLS YOU

Advertising is a paid presentation to promote ideas, goods, or services. Advertising appears in many types of media including newspapers, radio, television, and magazines. There are several different kinds of advertising and laws that affect each form.

Types of Advertisements

Retail advertising can be grouped into two broad categories. The first of these is *institutional* advertising. Institutional advertising tries to present the store as a desirable place to shop. Its aim is to build the reputation of the store, emphasize the store's position in the community, and instill confidence in the customer. Institutional advertising might point out the policies, services, special facilities, and conveniences offered by the store to make shopping pleasant and easy. Institutional advertising might also emphasize the prestige of the store and its reputation for fashion authority, complete selections, and general progressiveness. This helps to show that the store's buyers are alert and stock the newest things on the market. Institutional advertising is generally found in magazines, on television or radio, or on billboards.

A second type of advertising is *product* advertising. This category stresses the characteristics of individual products. Frequently in institutional advertising, little or no product information will be given. Just the opposite is true for product advertising. Usually a description of size, color, brand, and price is provided. The purpose of product advertising is to sell the specific items pictured or discussed. Product advertising can feature products that are at regular price or on sale. Product advertising is generally found in newspapers.

Advertising Laws

Several laws have been passed to protect consumers from being misled by advertisements. To be a wise clothing consumer, you should be aware of the following:

- **Former price comparisons.** The former price quoted in an ad (for example, "regularly $20") must be the actual price at which the article has been sold on a regular basis for a reasonable length of time.
- **Comparable value comparisons.** When a store advertises clothing as on sale at lower prices, the store must be sure that the price is actually lower than that charged by most stores in the area. For example, a store cannot advertise "slacks on sale - $10; regular $15 value" if every store in the area except two small stores normally sell the slacks for $10.
- **Manufacturer's list price or suggested retail price.** A list price can be used for comparison only if it is the price regularly charged by retailers in the area. Frequently, the price regularly charged by most retailers is not the manufacturer's list price.

WHAT ADVERTISING REALLY TELLS YOU - PAGE 2

- **Bargains based on purchase of other merchandise.** Advertisements such as "buy-one-get-one-free" or "2-for-1 sale" or "1¢ sale" must clearly outline all conditions of the offer. The store cannot mark up the price of the item that must be bought or decrease the usual quantity or quality. The term "free gift" cannot be used in such advertisements since a purchase must be made.

- **Miscellaneous price comparisons.** A store cannot use the words "wholesale price" or "factory price" unless these are the prices customers would pay if they bought directly from the manufacturer. If a store offers irregulars or seconds but uses prices for first quality merchandise for comparison, it must say so clearly.

- **Bait-and-switch.** It is not legal to lure a customer into a store through an advertised inexpensive item and then try to switch the customer to a higher-priced item through pressure selling.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture

Name ________________________ Period ___________ Date _______________

WHAT ADVERTISING REALLY TELLS YOU - PART I

Directions: While watching television, see if you can identify one institutional and one product advertisement. Then answer the following items:

Institutional Advertisement

1. Describe the institutional advertisement: ________________________________
____
2. What was the message the ad wanted to give about the store?
____
3. Was this accomplished? __________ If so, how? If not, why not?
____
4. What is your impression of the store after seeing this ad?
____

Product Advertisement

1. What information did you receive about the product from the ad?
____
2. Was the price of the product mentioned in the ad the regular price or the sale price?
_______________ If it was on sale, what kind of sale was it?
____
3. Did the ad seem enticing or convincing? ___________ If so, how? If not, why not?
____
4. What other information would be helpful in your decision making?
____

Look through some newspapers or magazines and find three (3) examples of each type of advertisement. Attach them to the back of this page. Identify which ads fall into which category.

Name ______________________ Period __________ Date ______________

WHAT ADVERTISING REALLY TELLS YOU - PART II

Directions: Select one of your favorite clothing items from your wardrobe. On this page, design a product advertisement to be published in the newspaper for this item.

SALES! SALES! AND MORE SALES!

"Sale! Sale! Sale!" How many times have you seen those words in a store window or advertisement? When is a sale really a sale? The different types of sales and the meaning of each type are defined below.

Promotional Sales

Clothing retailers are always looking for ways to attract customers into their stores. One of the more common ways of increasing more traffic is to "promote" certain items through advertising, publicity, and sale prices. Promotional sales are offered on regularly stocked clothing items at reduced prices for limited periods of time. For example, a store might advertise a regularly priced $20 blouse for $16. After the promotional sale, the blouse returns to the original $20 price. Promotional sales are frequently offered on well-known brands and merchandise and are sometimes held at the beginning of a season.

Promotional sales offer the customer an unusual value. The store may absorb the cost of selling the clothing at the reduced price or ask the manufacturer to assist in absorbing some of the costs. Some promotional sales are held at the same time each year. Therefore, it is smart to take note of promotional sales and plan your shopping accordingly. (See sales chart in Unit VI Topic A of the Dynamics of Clothing I curriculum.)

Special Purchase Sales

Sometimes you will see an advertisement that says "special purchase" or "special buy." These sales represent special offers by manufacturers to clothing stores. Usually, the store has bought the merchandise at a lower price because the manufacturer has excess inventory. Unlike promotional sales, these "special purchases" will remain at the sale price until all are sold. Buy "special purchase" merchandise carefully. Such items may be good buys, but they may represent lesser quality merchandise that the manufacturer has sold to the store at low prices just to get rid of.

Clearance Sales

Clearance sales are designed to move merchandise that is fast becoming out of season or out of style. For women's clothing, there are five major selling seasons. These seasons are early fall, fall, resort, spring, and summer. For men's clothing there are two major selling seasons: winter and summer. As the selling seasons change, stores frequently put already stocked items on sale to make room for incoming merchandise.

Because retailers must buy and stock their merchandise far in advance, clearance sales may actually occur during peak wearing times for the customer. For example, it is not uncommon to find clearance sales on swimsuits in June. The customer can still wear the swimsuit in July and August, which are frequently the hottest months of the year.

SALES! SALES! AND MORE SALES! - PAGE 2

The two major clearance sale months are January and July. Many clothing stores take inventory of their stock at the end of those months. To make the inventory process easier, they want to reduce their stock to the lowest possible levels. Frequently, you will hear or see these sales described as "inventory clearance sales." Some stores evaluate their inventory situations at the end of each month. These sales are referred to as "end of the month" sales or simply "E.O.M." sales.

When you purchase clearance sale merchandise, select styles that will not go out of fashion quickly. A winter coat purchased for half price in January can be a wise choice if it can also be worn the following winter.

Percent-Off Sales

Many stores will offer percent-off sales to generate store traffic. These can be storewide sales (everything in the store 20 percent off), department sales, or individual item or brand sales (30 percent off all Levi's or Wrangler jeans). Frequently, these sales are for only a limited period of time. Many stores hold storewide percent-off sales on a regular basis once or twice a year for one day. If a store where you like to shop does this, you can postpone purchasing an item until the day of the percent-off sale. This is a good way to save money on your clothing purchases, provided you are able to wait until the sale to get what you need.

Many percent-off sales will offer 10, 20, 30, or 40 percent off original prices. As you look through the clothes, figure out how much you can save on an item. To calculate 10 percent off a $20 blouse, simply move the decimal point one place to the left. If the savings are 20 percent off, multiply that amount by 2; if they are 30 percent off, multiply that amount by 3, etc.

Sometimes percent-off sales will involve merchandise that has previously been reduced or marked down. You can see that the old price was crossed out on the price tag and a new price written in. Always ask if the percent-off is calculated on the crossed-out price or the written-in price.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture

Name ______________________ Period __________ Date ______________

SALES! SALES! AND MORE SALES!

1. Visit a store and find a clothing item you would like to have that is on a promotional sale. Complete the following information about the item.
   - What is the usual price of the item? ________________
   - What is the price of the item on sale? ______________
   - For how long is the item on sale? __________________
   - Is the item a well-known brand? ____________________
   - Do you think the sale price represents a good buy? _________
     Why or why not? ____
   - What kind of information was provided on the labels of the garment?
     ____
   - Did the information on the labels influence your decision as to whether or not it is a good buy? __________ Explain ______________________________
   - How was the sale and/or garment advertised? ________________________
   - What do you think was the wholesale price of the garment? ______________
2. If this same item were on a percent-off sale, what would be the price be for the following percentages?

Price of Item	Amount Saved
20% off ______________	______________
25% off ______________	______________
33% off ______________	______________
40% off ______________	______________
50% off ______________	______________

   What percentage is 1/2 of 1/2? ______________

3. Find a "Special Purchase" sale item and check it out for quality vs. price.
   Item chosen: ______________________ Special purchase price: __________
   Suggested original value price (if available) ______________________
   Or, Price of a comparable product __________________________
   Does it fit correctly? _____ Is the fabric in good condition? _______
   Are the colors current? _______ Is the style "going out"? ________
   Would it be a good purchase? __________ Explain your answer.
   ____

DYNAMICS OF CLOTHING II

UNIT II: *WARDROBE SELECTIONS*

TOPIC B: **WARDROBE EVALUATION AND PLANNING**

OBJECTIVE: Students will explore the role personal values play on clothing choices and will develop a personal wardrobe plan.

CONCEPT: Personal values play an important role in one's clothing selections just as one's clothing selections play an important role in a wardrobe plan. The overall wardrobe must be versatile with many components that meet many different needs and still be affordable.

COMPETENCIES:

1. Identify outside influences on clothing decisions.
2. Evaluate the role personal values play in a wardrobe plan.
3. Review present wardrobe and evaluate for adequacy and appropriateness to personal lifestyle and activities.

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ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. Influences on Clothing Choices	Copies of student activity guide (II-II-34)
2. Influences of Values on Clothing Choices	Copies of student activity guide (II-II-38 and II-II-39)
3. Guest Speaker: Fashion Consultant	None
4. One Outfit Fits All?	None (students bring)
5. Closet Closeups	Copies of student activity guide (II-II-40 and II-II-41)
6. Design-A-Wardrobe	Current fashion magazines Pattern books List of requirements for assignment Copies of student activity guide (II-II-42)
7. Ideal Silhouette/Suit Yourself ©	Computer programs from Meridian Education Corporation Computer and printer 4" x 6" Index cards (See pages I-II-46 through I-II-49 of Dynamics of Clothing I curriculum.)
8. Wardrobe Selections	Textbooks Student activity guides (teacher generated)

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ACTIVITIES/OPTIONS

Option 1: **Influences on Clothing Choices**
Have the student complete the student activity guide, INFLUENCES ON CLOTHING CHOICES. When the students have completed the guide take a quick poll to see how many students checked each factor. Discuss the results as a class. Explain that whether or not they checked the factor labeled "your values," most of the factors that influenced their choices are based upon their personal value system. Follow this activity with the next activity.

Option 2: **Influences of Values on Clothing Choices**
Using the teacher background information as a guide, examine the ways personal values are reflected in clothing choices. Have the students complete the student activity guide, INFLUENCES OF VALUES ON CLOTHING CHOICES, and discuss the findings as a class.

Option 3: **Guest Speaker: Fashion Consultant**
Have a guest speaker from a local fashion store who will bring five to eight pieces and demonstrate how to develop a classy wardrobe with a minimum number of pieces. Ask them to also talk about the principles of design and how they can be applied to enhance personal appearance.

Option 4: **One Outfit Fits All?**
Have each student select one item from his/her wardrobe and use it as a pivot point. Then have the students bring these items to school with all the clothing items and/or accessories that could be worn with that item. See if they can make 15 different outfits from a core set of garments. Have the students present their outfits to the rest of the class in the form of a mini-fashion show.

Option 5: **Closet Closeups**
Have the students take an inventory of items in their wardrobes using the student activity guide, CLOSET CLOSEUPS.

Option 6: **Design-A-Wardrobe**
Use current fashion magazines or pattern books and have the students create a wardrobe for themselves. Include requirements for using color, line, and design to meet personal preferences, body contour, personal coloring, lifestyle, and activities. The teacher may want to put some limitations on number of items and/or amount spent.

A student activity guide, MY CLOTHING STYLE, can be used to assist the students in identifying the type of clothing they are most comfortable wearing.

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ACTIVITIES/OPTIONS

Option 7: **Ideal Silhouette/Suit Yourself**
If the video programs, Ideal Silhouette/Suit Yourself, and the accompanying materials were not used in Unit II of Dynamics of Clothing I, they could be used here very effectively.

Option 8: **Wardrobe Evaluation and Planning**
Have the students read related information from whatever textbooks are available and make personal application of the information with an assignment.

RESOURCES

Videos

Wardrobe Planning, Meridian Education Corporation, Dept. H-92, 236 E. Front Street, Bloomington, IL 61702, 1-800-727-5507. Catalog No. 2119.

Color in Clothing, Learning Seed, Learning Seed, 330 Telser Road, Lake Zurich, IL 60047. 1-800-634-4941. Catalog No. 146.

Wardrobe Management: Dress Well for Less, Learning Seed, 330 Telser Road, Lake Zurich, IL 60047. 1-800-634-4941. Catalog No. 152.

Clothing and You, Meridian Education Corporation, Dept. H-92, 236 E. Front Street, Bloomington, IL 61702, 1-800-727-5507. Catalog No. 2116.

ASSESSMENT/EVALUATION QUESTIONS

1. **Identify outside influences on clothing decisions.**

    1. List five (5) outside influences that can affect one's clothing choices.
        - what friends wear (peer pressure)
        - advertisements (TV, movies, magazines)
        - image you want to project
        - local customs and traditions
        - desire to be different/unique
        - climate-weather
        - personality likes
        - money available for clothing
        - your mood
        - comfort
        - current fads
        - activity for day
        - color
        - store displays
        - school dress code
        - style
        - personal values
        - self-concept

    2. What are the five (5) factors that influence your personal clothing choices most often?
        - Answers will vary

2. **Evaluate the role personal values play in a wardrobe plan.**

    1. Explain how personal values affect one's clothing choices.
        - Answers will vary
        - For example: If one values simplicity, one's clothing choices will probably be fairly plain and simple.

    2. Identify two (2) of your own personal values that are reflected in your clothing choices.
        - Answers will vary

    3. Explain how one's personal values affect the amount of money spent on clothing.
        - Answers will vary
        - For example: If one values education over appearance, more money will be spent on educational opportunities than up-to-date clothing.

    4. What are personal values?
        - Values are fundamental beliefs and attitudes about the worth or importance of things, and they direct our specific attitudes and interests.

    5. Where do we learn our values?
        We learn values from many sources, including the larger societies in which we live, our families, friends, schools, books, television, and movies.

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ASSESSMENT/EVALUATION QUESTIONS

3. Review present wardrobe and evaluate for adequacy and appropriateness to personal lifestyle and activities.

1. Putting together a well-functioning wardrobe does not take much work.
   A. True
   B.* False

2. The first step in planning a wardrobe is assessing how you spend your time.
   A. True
   B.* False

3. Good wardrobe planning results in clothes that go together well.
   A.* True
   B. False

4. On what should a wardrobe plan be based?
   A.* The clothes one already has
   B. Uniforms needed for work
   C. The clothes one needs to buy
   D. Money available

5. When purchasing clothing, it is not necessary to consider the items that are already in your wardrobe.
   A. True
   B.* False

6. A conservative dresser avoids extremes in fashion.
   A.* True
   B. False

7. One way to expand your wardrobe is to mix and match clothing separates in new ways.
   A.* True
   B. False

8. Your clothing choices should be partly based on how you spend your time.
   A.* True
   B. False

9. Clothes bought in matching outfits should never be worn with any other clothes.
   A. True
   B.* False

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ASSESSMENT/EVALUATION QUESTIONS

10. Describe two ways that clothing needs may be met.
    - Buying needed additions
    - Exchanging clothing among family members or friends
    - Altering or repairing clothing so it can be used for another season

11. People should avoid taking risks when choosing new clothing combinations.
    A. True
    B.* False

12. It is a good idea to avoid spending large amounts of money on faddish clothing.
    A.* True
    B. False

13. Buying versatile clothing now will allow you to adapt more easily to future clothing needs.
    A.* True
    B. False

14. Changing accessories can make an outfit look more or less dressy.
    A.* True
    B. False

15. Buying exactly the same clothing that a friend wears will ensure that you look your best.
    A. True
    B.* False

Name ______________________________ Period __________ Date _______________

INFLUENCES ON CLOTHING CHOICES

Directions: There are many outside influences on the clothing you choose to wear each day. From the list below, mark the different factors that influenced your choices of what to wear today.

_____ climate, weather
_____ style
_____ comfort
_____ current fad
_____ activity for day
_____ color
_____ your mood
_____ store displays
_____ self-concept

_____ school dress code
_____ what friends wear (peer pressure)
_____ advertisement (TV, movies, magazines)
_____ image you want to project
_____ local customs and traditions
_____ personality likes
_____ desire to be different/unique
_____ money available for clothing
_____ personal values

List, in order of importance, the top five (5) influences for your clothing choices today.

1. ____
2. ____
3. ____
4. ____
5. ____

Of the factors you marked in the top section, which ones are influenced by your personal value system? Mark them with a *. Then identify the personal value they reflect.

1. ____
2. ____
3. ____
4. ____
5. ____

THE INFLUENCE OF VALUES

Your decisions and attitudes about clothing are strongly affected by your values. Your values also determine how you interpret and react to the appearance and values of other people.

Values are fundamental beliefs and attitudes about the worth or importance of things and include or direct our specific attitudes and interests. We reflect our individuality by the values we hold, the attitudes we express, and the interests that intrigue us.

We learn values from many sources, including the larger societies in which we live, our families, friends, schools, books, television, and movies. Value patterns vary among societies, between generations, from one group to another, and from one person to another.

Initially, the individual's chief source of values is the family. Children learn very quickly to recognize those qualities that are given a high value and those that have none, behavior that brings reward or punishment, and actions that are admired or disapproved. As the child's world expands, so does its exposure to other value patterns. Each person will eventually be characterized by the combination of specific experiences that order and form his or her values.

Researchers have established that our general life values will also direct our clothing values, attitudes, and interests. Your values may be fairly consistent. You may be totally flamboyant with your money, lifestyle, and your clothing decisions. Or, you may be moderate in spending your money, like on splashy clothing, and be conservative about life in general. Many will find that, because of their life experiences, they have contradictions rather than consistencies in their clothing decisions.

Problems can arise when competing values point to different courses of action. Consider the person who wants to attract admiring glances and attention from the opposite sex by wearing a particular type of outfit. But the cost of the outfit is really above his/her budget, its use would be limited, and his/her parents would "have a fit." In such situations, most individuals are eventually able to rank his/her values so that one factor takes precedence over the others and the conflict is resolved.

Value conflicts over dress and personal appearance are often the center of disagreement between children and parents or other adults. However, it is erroneous to assume that everyone in any given age group has the same pattern of values. Many factors influence the development of attitudes and the order of values. Even members of the same family are likely to have different value orientations and conditioning.

THE INFLUENCE OF VALUES - PAGE 2

New values continually emerge. Small-group value changes become broader changes, particularly in a technical, free society such as ours. Some examples include:

- The change in economic values reflected by the method many people now use to pay for things—namely charge accounts.
- The clothing demanded by active sports that has changed the value of how much body exposure is acceptable.
- The increased availability of material "things" and our changed attitudes toward serviceability, durability, and the importance of quality.

If a person recognizes and accepts the priorities of his/her values and the fact that compromise and change may be needed at different times, clothing choices are not only simplified but also likely to bring greater satisfaction.

The activities that follow can help you think through which values are or are not important to you in your clothing choices. As you learn to define and understand your values, it becomes easier to make decisions about clothing and personal appearance. And, as a result, you will be happier with your clothing choices.

THE INFLUENCE OF VALUES - PAGE 3

GENERAL VALUE	DESCRIPTION OF VALUE	RELATIONSHIP TO CLOTHING
Aesthetic	Design, fit, beauty, harmony, and individualism important; mass production a threat; expressiveness/creativity important.	Clothing must be attractive, well-designed; fit must be perfect, texture and colors pleasing; likes individuality; hates uniformity
Economic	Usefulness/practicality important; accumulates wealth; luxury often confused with beauty.	Looks for comfortable, easy to maintain and use clothing; examines items carefully to get true dollar value for purchase; comparative shopper; abhors waste.
Political	Looks for power, leadership; dominates people; enhances self; wants admiration and and esteem; vain.	Dresses to impress others and to show he/she is better than others; would wear status clothing, fraternity buttons, school rings.
Social	Concerned for welfare of others; kind; unselfish; needs to be accepted and approved of by others.	Dresses appropriately; dresses like those in his/her group; wishes to feel confident in order to make others Comfortable; would try not to dress better than others.
Spiritual	Mystical, relates self to entire universe as a complete and orderly system; sees the divine In every event.	Simplicity is the ideal; no definite texture, no elegance; modesty; uniforms acceptable.
Theoretical	Discovery or truth, facts, and information; judgments about beauty and utility are not important.	Honest use of materials; wears only "real" rather than "fake" materials; would look for fiber content and care Label; comfort of clothing important.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture.

Name ______________________________ Period __________ Date ______________ .

INFLUENCE OF VALUES ON CLOTHING CHOICES

1. Look through a magazine and cut out the picture of an individual (well-known or unknown). Attach it to this paper. Describe the values reflected by what the person is wearing and by the person's total personal appearance. List all you can think of.

____

____

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____

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____

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____

____

2. In this section, make a list of your favorite clothing items for this season. Include anything you wear—day or night.

Favorite Clothing Items:

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________

Suppose you were told you had to eliminate at least three of these items. Draw a line through the three items you could do without the easiest. Now, suppose you had to give up all but three of these ten items. Circle the three items that mean the most to you or that you would choose to keep.

INFLUENCE OF VALUES ON CLOTHING CHOICES - PAGE 2

2. Why did you decide you could do without the first three items?

   Why do you want to keep the three items you circled?

   What personal values do these three items reflect?

3. In this third section, describe what you would wear for the activities listed. Then interview an adult over 30 years of age to find out what they think would be appropriate for you to wear.

Activities	What I Would Wear	What the Adult Thinks
School		
Movie		
Party/Dance		
Sports Activity		
Reception		

Were the adult's choices of clothing the same as yours? ____yes ____no

If not, why do you think there is a difference in ideas about what is appropriate to wear?

What values do your choices reflect?

What values do the adult's choices reflect?

Name ______________________________ Period __________ Date ______________

CLOSET CLOSEUPS

I. Think about your activities during the past week. Record the number of times you needed clothes in each of the categories below.

School ____________ Casual or Sports _________________

Work ______________ Dressy Occasions _________________

Conclusion: Most of my clothing should be for ____________________ occasions.

My current wardrobe:
_____ Has the right number of clothes for different occasions.
_____ Contains too much clothing in the ________________ category.
_____ Contains too little clothing in the __________________ category.

II. Sort your clothes into the categories below. Then choose three (3) garments in each category and list them.

FAVORITES	REPAIRS	REVISE	RETIRE
________________	________________	________________	________________
________________	________________	________________	________________
________________	________________	________________	________________

Evaluate your "favorites" first. Check what you like best about them:
___Style ___Fabric ___Versatility ___Comfort ___Color ___Fit ___Other
Conclusion: To buy more clothing that I will like as much as my current favorites, I should look for ____________________.

Describe three (3) clothing "repairs" or alterations you need to make.
Item 1 ____
Item 2 ____
Item 3 ____

Choose one garment from your "revise" list and think of a new way to coordinate it with your current clothing. Describe the new outfit.

____

What's wrong with the clothing on your "retire" list?
___It's worn out ___I've outgrown it ___It's unflattering ___It's out of style
Could they be recycled to serve another need? _____ If so, how? ____________

CLOSET CLOSEUPS - PAGE 2

III. List twelve (12) articles of clothing in your wardrobe, broken into the following categories. Then write the cost of each item next to it (the best you can remember). Now estimate the number of times you have worn each item. Divide the original cost by the number of times worn and see how much it has cost each time you've worn that piece of clothing.

WORN FREQUENTLY

Item description:	Original cost:	Estimated number of times worn:	Cost per wearing:
1.____________	1.____________	1.____________	1.____________
2.____________	2.____________	2.____________	1.____________
3.____________	3.____________	3.____________	1.____________
4.____________	4.____________	4.____________	1.____________

WORN OCCASIONALLY

Item description:	Original cost:	Estimated number of times worn:	Cost per wearing:
1.____________	1.____________	1.____________	1.____________
2.____________	2.____________	2.____________	1.____________
3.____________	3.____________	3.____________	1.____________
4.____________	4.____________	4.____________	1.____________

SELDOM WORN (ALMOST NEVER)

Item description:	Original cost:	Estimated number of times worn:	Cost per wearing:
1.____________	1.____________	1.____________	1.____________
2.____________	2.____________	2.____________	1.____________
3.____________	3.____________	3.____________	1.____________
4.____________	4.____________	4.____________	1.____________

Name ______________________________ Period __________ Date ______________

MY CLOTHING STYLE

Directions: Understanding your clothing style will help you choose clothes that make you feel and look your best and avoid buying clothes you will rarely wear. Circle "yes" or "no" in response to each question below. Then determine your clothing style by following the directions from your instructor.

yes no 1. Do you prefer comfortable clothes to a more dressy look?

yes no 2. Do you have some clothing in your wardrobe that you've worn for several years?

yes no 3. Are you usually the first person in your group to try a new fashion?

yes no 4. Given the choice, would you prefer to wear jeans to school?

yes no 5. Do you feel uncomfortable when your clothing attracts a great deal of attention?

yes no 6. Do you often experiment with unusual new looks?

yes no 7. Are most of your clothes suitable for informal occasions?

yes no 8. Do you find it easy to "dress up" or "dress down" your basic outfits by changing accessories?

yes no 9. Do you dislike the idea of wearing the same type of clothing every day?

yes no 10. Are sporty clothes especially attractive on you?

yes no 11. Are most of your clothes conservative in style?

yes no 12. Is it important to you to be up to date?

yes no 13. Do you prefer to keep the amount of jewelry you wear to a minimum?

yes no 14. Would you rather have a smaller number of high-quality clothes than a larger number of clothes of lesser quality?

yes no 15. Do you enjoy exotic colors and styles?

____________________: 1, 4, 7, 10, 13

____________________: 2, 5, 8, 11, 14

____________________: 3, 6, 9, 12, 15

Name ______________________________ Period __________ Date ______________

MY CLOTHING STYLE - TEACHER KEY

CONCLUSIONS:

1. Have the students write the names of the three styles of clothing on their papers.

   __CASUAL____________

   __TRADITIONAL_______

   __TRENDSETTER______

2. On the grid, circle the numbers of the questions to which you answered "yes."

3. The group in which you have the most "yes" answers is your look or style. (If your answers are evenly split, you have more flexibility in your clothing choices since you do not fit only one type.)

4. Explanations:

   The casual look is natural and informal.
   If this is your look, sportswear is attractive on you.

   The traditional look is more formal. It is a classic, conservative look.
   If you are a traditional dresser, you avoid extremes of color, texture, and style.

   The trendsetter look is high fashion and dramatic.
   If you are a trendsetter, you often change your appearance to bring it up to date.

DYNAMICS OF CLOTHING II

UNIT III: ***TEXTILES TECHNOLOGY***

TOPIC A: **FIBERS AND FABRICS**

OBJECTIVE: Students will be able to identify fabrics by fibers, type of construction, name, and appropriateness for project.

CONCEPT: Choosing the correct fabric for the project is a critical, basic decision in sewing.

COMPETENCIES:

1. Explore the history and origins of fibers used in fabric construction.
2. Review the characteristics of the basic fibers.
3. Study the characteristics of a larger variety of fibers. (Compared to Dynamics of Clothing I.)
4. Review basic types of fabric construction.
5. Study a larger variety of weaving and knitting patterns and the appropriate uses of the end products. (Compared to Dynamics of Clothing I.)
6. Study various types and purposes of fabric finishes and their effects on the end product.
7. Identify and name a large number of fabrics.
8. Use standard terms related to textile technology.

	ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1.	Textile History	As desired
2.	Textile History Timeline	Fabric for backing Bias tape Some icons Cards with dates/events
3.	Textile Fiber Product Identification Act	Overhead transparency (II-III-37) Small poster (II-III-38)
4.	Clothing Fibers Video	Video/video player Copies of student activity guide (II-III-39 to II-III-42)
5.	In the Beginning...Raw Fibers	Overhead transparencies (II-III-47 to II-III-56) Copies of student activity guide (II-III-57)
6.	Fibers Research Project	Copies of student activity guide (II-III- 58) Optional: Copies of student activity guides (II-III-59 and II-III-60) Fabrics as needed to support reports Materials for visual aids
7.	Fiber Burn Tests	Small swatches of fabrics Petri dishes Matches or cigarette lighter Fingernail polish remover (acetone)
8.	Fibers Under the Microscope	Microscopes Fibers on glass slides Copies of student activity guide (II-III-69)
9.	Feisty Fibers	Copies of student activity guide (II-III-70 and II-III-71)
10.	Fibers for Fun	Copies of student activity guide (II-III-73)
11.	Making Nylon Filament	Nylon Rope Kit #66193 (See resources on page II-III-11)

ACTIVITIES/OPTIONS		SUPPLIES NEEDED
12.	From Filament to Fabric	Overhead transparencies from Dynamics of Clothing I curriculum, pp. I-III-19 to I-III-21 Bulletin board (II-III-76 through II-III-81)
13.	Weaving Patterns	13.1: Large tubular piece 2 crepe paper rolls 2" wide or 2" wide strips of ribbon - 2 different colors Masking tape
		13.2: Paper student looms
		13.3: Copies of student activity guide (II-III-86) Colored pencils or markers
14.	Non-wovens	Fabric samples
15.	Fabric Exploration	#1: Corduroy swatches Velvet/terry cloth swatches Copies of student activity guide (II-III-92)
		#2: Acrylic and wool swatches Polyester/cotton blend swatches Fine sand paper or emery board Copies of student activity guide (II-III-93)
		#3: Acrylic knit swatches Polyester knit swatches Wool knit swatches Brush with nylon bristles Copies of student activity guide (II-III-94)
16.	Fabric Construction Samples	Copies of student activity guide (II-II-95)
17.	Adding Color to the Fabric	Bowl of dye Fibers, yarns, and fabrics to dye
18.	Fabric Finishes and Applied Designs	Fabric samples of various finishes and applied design techniques

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
19. Fabric Finishes Tic-Tac-Toe II	Game sets printed and assembled (II-III-103 through II-III-106)
20. Fabric Scavenger Hunt	Copies of student activity guide (II-III-107 and II-III-108) Fabric Information Cards for students (II-III-109)
21. Fabric Identification	Fabric samples with numbers and labels Copies of student activity guide (II-III-110 and II-III-111)
22. Fibers and Fabrics Bingo	Copies of student activity guides (II-III-112 and II-III-113) Bingo buttons or beans or chips

ACTIVITIES/OPTIONS

Note: There are many options listed in this unit—more than a teacher could ever do. To help you plan for this unit, it is suggested that you choose one or two activities from each group and spend one class period per group. For example:

One day = Textile History
One day = Fibers
One day = Fabric Construction
One day = Fabric Finishes
One day = Fabric Identification
One day = Summary and Review
One day = Evaluation

TEXTILE HISTORY ACTIVITIES

Option 1: **Textile History**

Using the teacher background information, TEXTILE HISTORY, summarize the information and present it to the students. Combine with Option 2 for maximum interest.

Option 2: **Textile History Timeline**

Using the information provided in TEXTILE HISTORY TIMELINE as a guide, begin a Textile History Timeline on one wall of the classroom (on fabric, of course), noting some of the most significant events. (Use wide bias tape for the timeline.) Start the timeline with only a few icons and keep adding to it as more icons are found and more material is covered. Give each student one of the significant dates and have them find or develop an icon or symbol for that date. The instructor may need to provide enlarged cards with dates and significant events printed on them.

Option 3: **Textile Fiber Product Identification Act**

Review the information pertaining to the TFPIA and explain the significance of this act on the industry and to the consumer. Introduce the fiber classifications used in this act, using the overhead transparency as a guide.

Note: During the following sections of this unit, many new textile vocabulary terms will be introduced. A list of the terms deemed to be most important has been compiled and can be found on page II-III-113. The teacher will need to incorporate the learning of these terms throughout this unit.

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ACTIVITIES/OPTIONS

FIBER ACTIVITIES

Note: Option 4, 5, or 6 can be used as a means of presenting the background material regarding fibers.

Option 4: **Clothing Fibers Video**
Show the students the video, Clothing Fibers, from Learning Seed. Use the accompanying activity guides from The Learning Seed as desired.

Option 5: **In the Beginning...Raw Fibers**
Using the background information provided in the packet at the end of this topic along with the overhead transparencies on pages II-III-47 through II-III-56, introduce the different categories of fibers and their properties to the students. A corresponding student activity guide is provided.

Option 6: **Fibers Research Project**
Break the class into small groups (2 or 3) and give each group the name of a fiber and have them research that fiber and prepare a report to give to the rest of the class. The packet provided at the end of this topic could serve as one resource for the students. A student activity guide is provided to guide the students in their research.

As the students present their reports, the other students can fill in the fiber charts if the teacher so desires. The teacher will need to provide enough natural fibers charts and manufactured fibers charts to cover the number of research reports given.

Option 7: **Fiber Burn Tests**
Using the teacher background information provided in Option 6 as a guide, conduct burn tests on a wide variety of fibers as well as some blended fibers. The teacher will need to have small swatches of the fabrics, petri dishes, and matches or cigarette lighter. The students can record the results on their student activity guides from Option 6. Be sure to have a fire extinguisher handy, just in case.

While doing these burn tests, it is a good time to include the acetone (fingernail polish remover) test on a piece of acetate and/or acetate blend fabric.

Option 8: **Fibers Under the Microscope**
Use microscopes from the science department to study the textures and composition of different fibers. A student activity guide is provided for the students to record their findings.

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ACTIVITIES/OPTIONS

There is a set of 24 slides available that support this activity specifically. They are titled, Technology and Fabric Properties, and come with detailed teacher information. They are produced by EDTEX of Australia, Ltd., and can be purchased through Schoolboards, Etc.

Option 9: **Feisty Fibers**
Have the students complete the crossword puzzle, FEISTY FIBERS, as a review on the fibers materials.

Option 10: **Fibers for Fun**
This is a little exercise for use as a filler when there are just a few minutes of class left. It's a fun activity that, again, is a review for the students.

FABRIC CONSTRUCTION ACTIVITIES

Option 11: **Making Nylon Filament**
Demonstrate making nylon fabric to the students (or have an AP chemistry student do the demonstration). Instructions for making the nylon are included in the resource section.

Option 12: **From Filament to Fabric**
Begin by reviewing the three (3) basic types of fabric construction from Dynamics of Clothing I, Unit III, Topic A. Then introduce more specific varieties of each of these three types of construction, using the teacher background information provided. The teacher may wish to use overhead transparencies, posters, or some other means of illustration as the material is introduced. Patterns for a bulletin board depicting the steps from filament to fabric are provided.

Option 13: **Weaving Patterns**
The sooner the teacher can get the students involved in reproducing the various weaving patterns, the better the concepts will be received. There are several fun ways of doing this, and the teacher will have to choose what is best for his/her situation.

1. Make a human loom with the students as the harnesses and the heddles, using two colors of 2-inch crepe paper strips or wide ribbon for the warp and the filling (weft). The details for this fun activity are in the resource section of this topic.

2. Use the paper student looms from the Fashion Strategies teaching aids. These are basically 11-inch by 17-inch pieces of heavy paper that have been laminated and cut into 1-inch strips except for the top 1 ½ inches

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ACTIVITIES/OPTIONS

(the top being the 11-inch side). Again, the looms are out of two colors of paper, and each student or group of students is given one piece of each color to make the different weaves. These sets are available from Schoolboards, Etc.

3. Have the students color various weaves on grids with colored pencils or markers.

Option 14: Non-wovens

Introduce the students to a variety of types of knit and felt fabrics using the background information provided. The teacher may wish to use overhead transparencies, posters, samples, or other means of identification as the material is introduced.

There is kit of non-woven fabric samples available that support this activity specifically. They are titled, Non-Woven Textiles, and come with detailed teacher information. They are produced by EDTEX of Australia, Ltd., and can be purchased through Schoolboards, Etc.

There is also a set of 24 slides produced by EDTEX of Australia, Ltd., that depict how geotextiles are used in road building, hi-tech sports equipment, defense equipment, and protective clothing production. Again, the slides come with accompanying teacher information.

Option 15: Fabric Exploration

Set up three (3) or six (6) experiment stations around the room, depending on the number of students in the class. (If you have six (6), there are two (2) of each station.) Have the students work in pairs and complete each experiment, following the instruction on the student activity guide, FABRIC EXPLORATION #1, #2, and #3. The experiments are described in detail in the resource section of this topic.

Option 16: Fabric Construction Samples

Have the students collect samples of various types of woven, knitted, and felt fabrics. A student activity guide on which the students can attach their samples is provided. The teacher may choose to do this in some other manner, such as using 3-inch by 5-inch cards.

Sets of student samples can be purchased from a number of suppliers if the teacher would prefer this option. (See Resources for this unit.) If the teacher is making his/her own set of samples, it is suggested that he/she use all white fabrics so the students are not distracted by the colors.

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ACTIVITIES/OPTIONS

FABRIC FINISH ACTIVITIES

Option 17: Adding Color to the Fabric

Introduce the students to the methods of dyeing commonly used in the textile industry using the background information provided. The teacher may wish to use posters, samples, or other means of illustration as the material is introduced. The teacher could demonstrate the different methods of dyeing by having a small bowl of dye, some real fibers (cotton, wool, flax, etc.), yarns (threads) from these fibers (fabric can be unraveled), small swatches of white fabrics from these fibers, and a small item made from the fabrics of each fiber. Adding a couple of white blended yarns/fabrics to the demonstration would enhance the integrity of the learning experience.

Option 18: Fabric Finishes and Applied Designs

Using the teacher background information provided, introduce the students to the commonly used fabric finishes and techniques of applying designs. This information is from the textbook, Clothing, by Jeanette Weber, chapters 9 and 17, published by Glencoe. It is recommended that the teacher review this material in total before presenting it to the students. The teacher will need to have some samples of fabrics with the various finishes and design processes ready to show the students.

Option 19: Fabric Finishes Tic-Tac-Toe II

Students play FABRIC FINISHES TIC-TAC-TOE II as a means of learning and/or reviewing the various types of fabric finishes, dyeing, and applied design techniques. Two students can play at a time, so the teacher will need to have enough sets for the class. The teacher background information sheets in options 17 and 18 can be used as the teacher/student keys.

Directions for printing the games: Use four sets of three colors each: one for the performance finishes, one for the texture finishes, one for the dyeing techniques, and one for the applied design techniques. There must be two copies of the clue parts for each game set—one for each student.

FABRIC IDENTIFICATION ACTIVITIES

Option 20: Fabric Scavenger Hunt

As an introduction to fabric identification, give each student or group of students a list of fabrics and have a scavenger hunt to see which group can find the most fabrics the quickest. This will help the students to realize the importance of recognizing a lot of types of fabrics for most effective choices and use.

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ACTIVITIES/OPTIONS

Option 21: Fabric Identification

Make a set of 50 or more fabric samples, numbering and labeling each of them. Hang the fabric pieces around the room or on a bulletin board for the students to study. Leave them up for a period of time--preferably throughout this unit. When the students are ready to be tested, remove the names (not the numbers) and use the student activity guides for testing.

Each teacher can make his/her own list of fabrics and update it regularly as popular fabrics come and go. The list provided in this curriculum can be used as a point of reference or as is.

In the Fashion Strategies curriculum developed by the Utah State Office of Education, there are pages provided for the collection of fabric samples. See pages IX 44 through IX 48.

There are kits of fabric samples available which includes information about each fabric and/or samples for the students. They are listed in the Resources for this unit.

SUMMARY ACTIVITY

Option 22: Fibers and Fabrics Bingo

Have students play Fibers and Fabrics Bingo as a unit review. A bingo sheet is provided for duplication, along with a list of the terms learned in this unit. Have the students fill in their bingo cards and then play. (This is similar to the Textiles Bingo from the Fashion Strategies curriculum but different.)

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RESOURCES

Fabric Samples: Teacher and/or Student

Apparel Tech, The Textile Kit, 13104 Canterbury, Leawood, KS 66209,
1-913-663-1881.

Pineapple Appeal, MicroFiber Fabrics, P. O. Box 197, Owatonna, MN 55060,
1-800-321-3041, Catalog No. 332.

Schoolboards, Etc., Exploring Woven and Knitted Textiles Kit, Catalog No.
EDTEX 4.
Exploring Woven and Knitted Textiles-Student Samples, Catalog No.
EDTEX 7, P.O. Box 9106, Ogden, UT 84409, 1-800-93BOARD.

Videos

Clothing Fibers, The Learning Seed, 330 Telser Road, Lake Zurich, IL 60047, 1-800-634-4941, Catalog No. 142, 24 minutes.

Understanding Fabrics, The Learning Seed, 330 Telser Road, Lake Zurich, IL 60047, 1-800-634-4941, Catalog No. 166, 24 minutes. Has software program to go with it.

Books

Clothing textbook, Jeanette Weber, Glencoe Publishing Co., 3008 W. Willow Knolls Drive, Peoria, IL 61614, 1990.

Scientific Supplies

Nylon Rope Kit, Science Kit and Boreal Laboratories, 1-800-828-7777, Catalog No. 66193.

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RESOURCES

Textiles Teaching Aids
The following items are available through Schoolboards, Etc., P.O. Box 9106, Ogden, UT 84409, 1-800-93BOARD:

- Human Loom Set, $50
- 12 Sets of Individual Student Looms (paper), $30
- Fibers and Fabrics Bingo Sets (30 cards and buttons), $45
- Fabric Finishes Tic-Tac-Toe II Sets, 12 Sets (3 each), $90
- Exploring Woven and Knitted Textiles Kit, Catalog No. EDTEX 4, $74.95
- Exploring Woven and Knitted Textiles-Student Samples, Catalog No. EDTEX 7, $26.95
- Technology and Fabric Properties Slide Set, Catalog No. EDTEX 6, $84.95
- Non-Woven Textiles Kit, Catalog No. EDTEX 5, $59.95
- Industrial and Non-Apparel Textiles Kit, Catalog No. EDTEX 1, $89.95
- Medical Textiles Kit, Catalog No. EDTEX 2, $84.95
- Design and Technology Slide Set, Catalog No. EDTEX 3, $69.95
- From Filament to Fabric Bulletin Board Pieces, $7.50
- Bingo Buttons (set of 750), $25
- Set of 15 Fabric Construction Samples and 10 Fiber (Fabric) Samples (labeled), $50
- Fabric Identification Cards (set of 100), $6.50

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ASSESSMENT/EVALUATION QUESTIONS

1. Explore the history and origins of fibers used in fabric construction.

1. The first fabrics used in this country were mainly from:
   A. Africa
   B.* England
   C. France
   D. Native Americans

2. The biggest hindrance to using cotton for fabrics in the early days was:
   - There was no way of removing the seeds from the cotton boll.

3. Synthetic fibers are:
   A.* Produced in a laboratory
   B. Made by spinning natural fibers
   C. Both of the above answers are correct

4. The first synthetic fiber was called:
   A. Polyester
   B. Vinyl
   C.* Nylon
   D. Acrylic

5. Silkworms were first cultivated in:
   A. The United States
   B. Spain
   C. The English Territories
   D.* The Orient

6. William Lee invented a machine to knit hosiery in the late:
   A. 1300s
   B.* 1500s
   C. 1800s

7. Who invented the cotton gin?
   A. Samuel Slater
   B. Edmund Cartwright
   C.* Eli Whitney
   D. Hilaire Chardonnet

8. The person who is credited for developing the first manufactured fiber is:
   A. Samuel Slater, polyester
   B. Edmund Cartwright, silk
   C. Eli Whitney, cotton
   D.* Hilaire Chardonnet, rayon

ASSESSMENT/EVALUATION QUESTIONS

2. Review the characteristics of the basic fibers.

3. Study the characteristics of a larger variety of fibers.

MATCHING

A 1. Threadlike strands that may be made into fabric or spun into yarns.

E 2. To make from raw materials through planned manufacturing processes.

C 3. Continuous strand composed of intertwined fibers.

B 4. General name not registered by any one manufacturer.

L 5. The numbers of yarns twisted together is called the _____.

F 6. Name given to a fiber by the company that makes it.

I 7. The ability of a fiber to hold water.

J 8. Fibers that may be damaged by high temperatures while washing, drying, or ironing.

K 9. The ability of a fiber to return to its original size and shape after it has been twisted and crumpled.

D 10. Strength is another fiber _______________ that affects garment care.

G 11. The ability of a fabric to maintain its exact shade of color throughout the life of the garment.

H 12. Twisting or stretching may damage these fibers.

TERMS TO USE IN MATCHING

A-FIBERS
B-GENERIC NAME
C-YARN
D-CHARACTERISTIC
E-SYNTHESIZE
F-TRADEMARK NAME
G-COLORFASTNESS
H-DELICATE
I-ABSORBENCY
J-HEAT SENSITIVE
K-RESILIENCY
L-PLY

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ASSESSMENT/EVALUATION QUESTIONS

13. Which is the best fiber for clothes worn often and washed often:
    A.* Cotton
    B. Wool
    C. Silk
    D. Ramie

14. Which fiber is NOT produced by a plant?
    A.* Silk
    B. Flax
    C. Cotton
    D. Ramie

15. What happens to manufactured fibers when they are burned?
    A. Become ash
    B.* Melt and form a bead

16. A fabric made of more than one fiber is called a:
    A. Ply
    B. Bead
    C.* Blend
    D. Finish

17. The 5 natural fibers are:
    A.* Wool, linen, silk, ramie, cotton
    B. Wool, linen, rayon, ramie, cotton
    C. Nylon, acrylic, rayon, polyester, cotton

18. Name three natural fibers that wrinkle easily:
    A. Wool, silk, cotton
    B.* Cotton, ramie, linen
    C. Nylon, ramie, rayon
    D. Polyester, wool, cotton

19. What is "pilling"?
    - Fiber balls form on areas of wear

20. Which fiber and fabric is made from flax?
    A. Cotton
    B. Wool
    C.* Linen
    D. Silk

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ASSESSMENT/EVALUATION QUESTIONS

21. Natural fibers can be washed in hot water without damaging the fabric.
    A. True
    B.* False

22. Which two natural fibers cause your skin to itch?
    A.* Wool and ramie
    B. Silk and cotton
    C. Wool and cotton
    D. Ramie and silk

23. What could you soak clothes in to prevent their colors from running?
    - A vinegar, salt, and cold water solution

24. Would you make a girdle out of acrylic? Why?
    - NO! It would not give support

25. Would you make underwear out of wool? Why?
    - NO! It would be itchy, hard to wash, and slow to dry

26. A fiber is a:
    A. Thread
    B. Man-made item
    C.* Hair-like substance
    D. Natural substance

27. A yarn is:
    A.* Twisted threads
    B. Another word for thread
    C. Natural fibers
    D. Virgin wool

28. What is a blend?
    A.* A mixture of several fibers
    B. A way of weaving fabric
    C. A combination of threads
    D. A synthetic fiber

29. What are staple fibers?
    A. Synthetic fibers
    B. Natural fibers
    C. Long fibers
    D.* Short fibers

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ASSESSMENT/EVALUATION QUESTIONS

30. What are filament fibers?
    - A. Short fibers
    - B. Crinkled fibers
    - C. Hollow fibers
    - D.* Long fibers

31. Why are fibers blended in fabric?
    - A. To make it more available to the general public
    - B. To use up odds and ends of fibers
    - C. All fabrics are blended
    - D.* To obtain the good qualities of each fiber

32. All of the following are natural fibers except:
    - A. Linen
    - B. Silk
    - C.* Polyester
    - D. Wool

33. What was the first man-made fiber?
    - A. Polyester
    - B. Nylon
    - C.* Rayon
    - D. Spandex

34. What are two protein fibers?
    - A. Wool, cotton
    - B. Spandex, linen
    - C.* Silk, wool
    - D. Cotton, acetate

35. What fiber is synthetic, very stretchy, lightweight, and durable?
    - A. Polyester
    - B.* Spandex
    - C. Rayon
    - D. Linen

36. What fiber is natural, strong, and made by worms?
    - A. Linen
    - B. Polyester
    - C. Cotton
    - D.* Silk

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ASSESSMENT/EVALUATION QUESTIONS

37. What fiber is synthetic, washes easily, resists wrinkling but retains oily stains?
    A. Nylon
    B. Rayon
    C. Acetate
    D.* Polyester

38. What fiber is natural, absorbent, wrinkles easily, and shrinks in hot water?
    A.* Cotton
    B. Linen
    C. Wool
    D. Rayon

39. What fiber is synthetic, made from wood pulp, and was the first man-made fiber?
    A. Nylon
    B. Polyester
    C. Acrylic
    D.* Rayon

40. What fiber is natural and very warm?
    A.* Wool
    B. Silk
    C. Rayon
    D. Linen

41. What natural fiber is made from a flax plant?
    A. Wool
    B. Silk
    C. Rayon
    D.* Linen

42. Which synthetic fiber is soft, warm, lightweight, and usually used in sweaters?
    A. Acetate
    B.* Acrylic
    C. Rayon
    D. Polyester

43. Which synthetic fiber does not shrink but lacks strength?
    A. Polyester
    B. Nylon
    C.* Acetate
    D. Spandex

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ASSESSMENT/EVALUATION QUESTIONS

44. Which synthetic fiber is very strong but tends to build up static electricity?
    A.* Nylon
    B. Rayon
    C. Spandex

45. What are two fibers that burn and char, have an afterglow, form a soft, gray ash, and smell like burning paper?
    A.* Cotton, rayon
    B. Wool, nylon
    C. Polyester, cotton
    D. Flame retardant, wool

4. Review basic types of fabric construction.

5. Study a larger variety of weaving and knitting patterns and the appropriate uses of the end products.

1. What is the warp of a fabric?
   A. Crosswise threads
   B.* Lengthwise threads
   C. The grain of the fabric
   D. Synthetic fillers

2. What is the filling of a fabric?
   A.* Crosswise grain
   B. A combination of threads
   C. Something to fill in the holes on an open weave
   D. Lengthwise grain

3. Which one of these fabrics is NOT a pile fabric?
   A. Corduroy
   B. Velvet
   C. Terrycloth
   D.* Nylon

4. What basic type of weave has a diagonal design on the surface?
   A. Satin
   B. Plain
   C.* Twill
   D. Pile

5. Why do "jeans" wear so well for so long?
   - Twill weave is very durable as is cotton. Both are found in jeans.

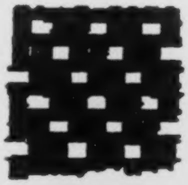
ASSESSMENT/EVALUATION QUESTIONS

6. Which of the following is a way that fabric is made?
   A. Mercerized
   B.* Woven
   C. Sized
   D. Sanforized

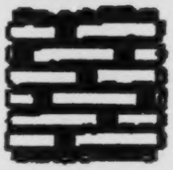
7. When a fabric is woven, which thread is the strongest?
   A.* Warp
   B. Filling
   C. Natural fibers
   D. Synthetic fibers

8. What is another word for grain?
   A. Fibers
   B. Synthetic
   C.* Threads
   D. Warp

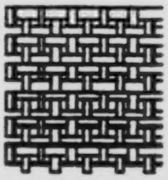
9. Identify this weave:
   A. Satin weave
   B. Plain weave
   C.* Twill weave
   D. Diagonal weave



10. Identify this weave:
   A.* Satin weave
   B. Smooth weave
   C. Plain weave
   D. Twill weave



11. Identify this weave:
   A. Regular weave
   B.* Plain weave
   C. Satin weave
   D. Twill weave



12. Cloth made by interlacing yarns at right angles to each other is:
   A.* Woven
   B. Knit
   C. Non-woven

13. Cloth made by interloping one or more yarns is:
   A. Woven
   B.* Knit
   C. Non-woven

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ASSESSMENT/EVALUATION QUESTIONS

14. A fabric characteristic that runs both lengthwise and crosswise in every woven fabric is called the ______________.
    - Grainline

6. Study various types and purposes of fabric finishes and their effects on the end product.

1. When a fabric is finished so that little or no ironing is needed, the fabric has been:
   A. Mercerized
   B. Calendered
   C.* Coated with a durable press finish
   D. Heat set

2. Fabric finishes may wash out of clothes after several washings.
   A.* True
   B. False

3. When a fabric is put between two rollers to add a glaze or design, it has been:
   A.* Calendered
   B. Sanforized
   C. Heat set
   D. Sized

4. When an alkali solution is put on cotton to give it added luster and strength, the fabric has been:
   A.* Mercerized
   B. Calendered
   C. Sanforized
   D. Tentered

5. When a fabric is set into shapes—like pleats—using heat, it has been:
   A. Calendered
   B. Mercerized
   C.* Heat set
   D. Tentered

6. What is the finish called when starch is applied to a fabric giving it more body?
   A. Tentering
   B. Heat setting
   C. Napping
   D.* Sizing

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ASSESSMENT/EVALUATION QUESTIONS

7. What is the process called that preshrinks cloth so that it won't shrink more than 1 percent?
   A.* Sanforizing
   B. Sizing
   C. Napping
   D. Calendering

8. When a cloth is passed over rollers with wire teeth to pull out the fiber ends to make the cloth fuzzy, the fabric has been:
   A. Sized
   B. Mercerized
   C. Calendered
   D.* Napped

9. When masses of natural fibers are placed in the dye bath, this is:
   A. Tie and dye
   B. Yarn dyeing
   C.* Stock dyeing
   D. Solution dyeing

10. Silk screen is one type of:
    A. Direct printing
    B. Piece dyeing
    C.* Resist printing
    D. None of the above

11. The ability of dye to maintain its exact shade of color throughout the life of a garment is called ________________.
    A. Sanforization
    B.* Colorfastness
    C. Tendering
    D. Mercerizing

12. Treatments or processes applied to fabrics to improve their quality are called ________.
    A. Beginners
    B. Midways
    C.* Finishes

13. A water-repellent finish may close the spaces between yarns in a fabric, making it impossible for perspiration to:
    A. Absorb
    B. Have odor
    C.* Evaporate

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ASSESSMENT/EVALUATION QUESTIONS

14. A permanent press garment should be rinsed in ________ water.
    A. Hot
    B. Warm
    C.* Cold

15. Garments that are treated to hold their original shapes, pleats, and creases, are:
    A. Tie-dyed
    B.* Permanent pressed
    C. Heat sensitive
    D. Resilient

7. Identify and name a large number of fabrics.

1. The name of this fabric is:

   (ATTACH SAMPLE)

   A. Gingham
   B. Jacquard
   C. Poplin
   D.* Seersucker

2. The name of this fabric is:

   (ATTACH SAMPLE)

   A.* Gingham
   B. Tricot
   C. Flannel
   D. Corduroy

3. The name of this fabric is:

   (ATTACH SAMPLE)

   A.* Broadcloth
   B. Seersucker
   C. Poplin
   D. Canvas

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ASSESSMENT/EVALUATION QUESTIONS

4. The name of this fabric is:

   (ATTACH SAMPLE)

   A. Denim
   B.* Jacquard
   C. Gingham
   D. Corduroy

5. The name of this fabric is:

   (ATTACH SAMPLE)

   A. Tricot
   B. Broadcloth
   C.* Satin
   D. Jacquard

6. The name of this fabric is:

   (ATTACH SAMPLE)

   A. Satin
   B. Jacquard
   C. Broadcloth
   D.* Tricot

7. The name of this fabric is:

   (ATTACH SAMPLE)

   A. Velour
   B. Terry cloth
   C. Oxford cloth
   D.* Flannel

8. The name of this fabric is:

   (ATTACH SAMPLE)

   A.* Corduroy
   B. Oxford cloth
   C. Denim
   D. Flannel

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ASSESSMENT/EVALUATION QUESTIONS

9. The name of this fabric is:

   (ATTACH SAMPLE)

   A. Broadcloth
   B. Poplin
   C.* Oxford cloth
   D. Chintz

10. The name of this fabric is:

    (ATTACH SAMPLE)

    A. Tricot
    B. Satin
    C.* Single knit
    D. Jacquard

11. The name of this fabric is:

    (ATTACH SAMPLE)

    A.* Double knit
    B. Terry cloth
    C. Quilting
    D. Tricot

12. The name of this fabric is:

    (ATTACH SAMPLE)

    A. Flannel
    B.* Denim
    C. Gingham
    D. Flocking

13. The name of this fabric is:

    (ATTACH SAMPLE)

    A. Velour
    B. Felt
    C.* Chintz
    D. Canvas

ASSESSMENT/EVALUATION QUESTIONS

14. The name of this fabric is:

(ATTACH SAMPLE)

A.* Felt
B. Corduroy
C. Oxford cloth
D. Single knit

8. Use standard terms related to textile technology.

Match the textile term on the left with the correct definition on the right.

1.	FIBER	__1_ A fine hairlike substance.
2.	FABRIC	__5_ Fibers long enough to be measured in yards.
3.	YARN	__4_ Fibers long enough to be measured in inches.
4.	STAPLE	__2_ Another term for cloth.
5.	FILAMENT	__3_ The result of twisting many fibers together.
6.	BLEND	_10_ A family of fibers that share a particular set of characteristics.
7.	NATURAL	_11_ The name given to a fiber by a manufacturer.
8.	SYNTHETIC	__8_ Fibers made by man from chemicals.
9.	SPINNERET	__6_ A combination of fibers to get the best characteristics of each.
10.	GENERIC	__7_ Fibers of plant or animal origin.
11.	TRADEMARK	__9_ A device through which chemical solutions are forced to make fibers.
12.	WARP	_14_ A type of fabric construction which interlaces two or more sets of yarns at right angles.
13.	FILLING	_19_ The weave in which each warp yarn passes over four filling yarns.
14.	WOVEN	_17_ The weave where each filling yarn passes over and under one warp yarn.
15.	KNIT	_16_ A type of fabric made by applying heat, moisture, and agitation.
16.	NON-WOVEN	_13_ The crosswise yarns on a loom.
17.	PLAIN	_12_ The lengthwise yarns on a loom.
18.	TWILL	_18_ A weave with a diagonal rib.
19.	SATIN	_15_ Interlocking loops of yarn to make fabric.

ASSESSMENT/EVALUATION QUESTIONS

20.	GRAY CLOTH	_23_ When the fiber is spun into yarn and then dyed.
21.	STOCK DYEING	_24_ Cloth is dyed after it is woven.
22.	SOLUTION DYEING	_22_ Used on synthetic fibers—dye added to solution before spinning.
23.	YARN-DYED	_20_ Fabric as it comes from the loom, before color is added.
24.	PIECE-DYEING	_21_ Masses of fibers, such as wool or cotton, are placed in dye bath.
25.	DIRECT PRINTING	_32_ The design is traced onto a screen and all other areas blocked out before printing.
26.	RESIST PRINTING	_29_ A watered or wavy pattern created by calendaring two layers of fabric slightly off-grain.
27.	EMBOSSING	_31_ When a roller press has a plate for each different color.
28.	BLOCK PRINT	_27_ Using special patterned rolls in the calendar.
29.	MOIRÉ	_26_ Blocking off certain areas before applying dye.
30.	BATIK	_25_ Prints dyestuff directly onto fabric.
31.	ROLLER PRINT	_28_ A design is carved into a block, inked, and printed.
32.	SCREEN PRINT	_30_ When hot wax is applied to the areas that will not be dyed and the fabric is then dipped into the dye.
33.	CALENDERING	_39_ The fabric has the ability to absorb moisture.
34.	GLAZING	_36_ Starch is applied to fabric to give body.
35.	NAPPING	_33_ When cloth passes between rollers to apply glaze, shine, or design.
36.	SIZING	_38_ Helps prevent fabrics from clinging and building up static electricity.
37.	PERMANENT PRESS	_35_ Using rotating wire brushes to create a soft, fuzzy surface.
38.	ANTISTATIC	_40_ A finish that checks the growth of bacteria and perspiration odors.
39.	ABSORBENT	_37_ Keeps garments smooth and wrinkle-free.
40.	ANTIBACTERIAL	_34_ Applying a resin to produce a high polish (glaze) on fabric surface.

TEXTILE HISTORY

Textile creating was not easy; producing the raw materials and then manufacturing them into the finished goods was a long and difficult task. After the textiles were made, they needed to be dyed for lasting appeal. Dyes were difficult to find and store; extracting the desired color was a long process. Colonists also had to learn how to impart the colors to the cloth, distinguish what colors would remain "fast," and determine which would hold to the linen, wool, or cotton.

The first fabrics used in this country were chiefly from England and were brought over by the early settlers. There is not a great deal of American evidence concerning fabrics other than family traditions. While France is rich in records of her textile industries, England is almost poor, and America destitute. Nothing has been found in America that equals the factory pattern books of the Peel Works in England.

Little is known about the true beginning of spinning and weaving, although we have always been taught that "when Adam delved, Eve spun." As the colonists were building their America, the textile industry was in full force in Europe. It had become a highly refined industry. The colonies would have to learn and refine the trade for themselves.

The materials woven on the early domestic looms, and later on the power driven factory looms, were used for all types of woven apparel and household necessities. The designs of these fabrics varied. Some were plain; others were figured. These basic or staple fabrics were treasured and were used for one or more purposes, first for clothing and then for quilt tops. The most common types of cotton fabrics found in early America were chintz, homespun, broadcloth, muslin, and percale.

By 1940, American manufacturers had reached the point of producing beautiful and desirable printed cotton. As a result of this, more attractive clothing and bedcovers could be made. From this point on, the colors, fabrics, and patterns improved and production increased. Fabrics were subject to availability because of the transportation of the goods or economic status of the buyer.

COTTON

Cotton is durable, dyes beautifully, and has a soft hand; it is easy to cut, sew, mark, press, and work with. Cotton holds its shape well and is available in a wide range of colors and printed designs.

In America, Columbus not only found cotton growing, but he also found cloth that had already been hand woven by the Native Americans. Cotton grew in abundance in Virginia, but it did not become important as a commodity until after the American Revolution. There were two reasons for this: the first was the discouragement by England of any cotton industry that would compete with their own, and the second was that there was no way of removing the seeds from the cotton boll.

TEXTILE HISTORY - PAGE 2

Cotton is a plant of the hollyhock family, with a fluffy seed pod called the "boll." It was first used as a decorative plant in the Americas. The best cotton we know today has a long fiber and is known as "Sea Island Cotton" because it is grown on the islands off the coast of South Carolina, Georgia, and Florida. It is generally accepted that next to Sea Island Cotton, Egyptian cotton has the greatest value. Marco Polo gave an early account of cotton as a vegetable wool growing on trees. He pictured them with sheep heads on the ends of the branches.

The fine cotton calicoes and chintz had to be imported from England until the nineteenth century. All scraps left after dressmaking were prized, preserved, and stitched together to make a new piece of cloth or a quilt top. Until the Industrial Revolution in the latter part of the 19th century, there was never enough cloth to make all that was wanted.

LINEN

In the past, linen was a common commodity. Then it was rarely used for a number of years because of the fact that it takes 16 months from the time of planting to the weaving of the fabric. However, linen has made a large comeback in the fashion industry in the last few years. Linen is durable but does not wear well due to the abrasion that occurs.

WOOL

Wool is a valuable and serviceable fabric. Even if it is patched several times, it gives lasting use. In early America, the woolen quilts were referred to as linsey-woolseys. This folk term goes back to English references in the 16th century and it refers to the coarse utility fabric combining a linen warp and wool weft. It was most suitable for winter hangings and upholstery. It was imported by the Hudson Bay Company and used for trade with the Indians. Most of the worsted and linsey-woolsey quilts were of one color and finely quilted. Such monochromatic creations were probably more popular in their day because they could add a sense of formality and magnificence to the bed coverings.

Woolen cloth, linsey-woolsey, and homespun (cotton) cloth were the only fabrics available to the early Americans, and they took a long time to manufacture. They were colored with indigo and natural dyes.

SILK

Silk had been around the Orient for centuries but was rarely used in early America because of its delicate nature and expense. It was sought out for its beauty and used primarily for elegant clothing.

TEXTILE HISTORY - PAGE 3

)SYNTHETIC FIBERS (MANUFACTURED

Without the synthetic fibers that chemists have created this century, we could not clothe the world to the extent that we do today. For the first time, fibers are actually made of materials that have no relation to natural fibers. Petroleum, natural gas, water, air, and even such things as corncobs are the raw materials of synthetic fibers. It took years of research and untold amounts of money to develop and market these fibers.

Synthetic fibers are produced in the laboratory; they are manufactured fibers. Raw materials are first made into a solution. Long filaments are formed by forcing the solution through a spinneret. These filaments can be left long or chopped into shorter lengths and spun like the natural fibers. The chemical solution from which a manufactured fiber is made may include additives to dull the fiber, to dye it, or to add other properties.

The great explosion of these synthetic fibers has occurred since the 1930s.

Fiber	Year
Nylon	1939
Modacrylic	1949
Acrylic	1950
Polyester	1953
Spandex	1959

When producing the yarn, different types of fibers can be blended together, or the yarn can be from a single fiber source. The yarn can be twisted very tightly in the spinning process to give a pebbly or crepe-like surface to the fabric later. It can be crimped to add a spring-back characteristic or textured in other ways.

MAN-MADE FIBERS (MANUFACTURED)

Man-made fibers include those known as “cellulose” fibers. Wood pulp is the main source of cellulose fibers and the generic names of these fibers are rayon and acetate. Basically, these are natural fibers that have been chemically altered enough to produce a totally different type of fiber. Rayon was the first of these fibers to be developed in 1910, and later, acetate was developed. Both of these fibers are used extensively today.

TRADE NAMES

The first synthetic fiber was named nylon. It became such a household word that nylon is now the generic or family name of the fiber. We even refer to women's hosiery as nylons, since it has nearly replaced all the other fibers used in this product. There have been numerous variations and improvements to this fiber.

TEXTILE HISTORY - PAGE 3

Companies use their own trade names for synthetic fibers. A trade name identifies the product as belonging to a specific company. Great consumer confusion existed when companies began manufacturing similar fibers under their own trade names. An advertisement for a garment might list only the trade name. People thought different trade names, such as Orlon and Acrilan, were totally different fibers, instead of members of the acrylic family.

TEXTILE HISTORY

The history of textiles is ancient. No one knows for sure when the first cloth or fabric was discovered by man. Early man needed protection from the elements, so they needed fabric from which to make articles of clothing to protect their bodies from the extremes of temperature and various forms of precipitation.

A historical timeline for textile production is provided on the following page.

TEXTILE HISTORY TIMELINE

PREHISTORIC AND ANCIENT TIMES

6300 B.C.	Archaeological discovery of fine woven cloth fragments in Turkey (30 to 38 threads per inch).
3000 B.C.	Cotton was being grown in Pakistan, western India, and perhaps the Americas.
2700 B.C.	Chinese cultivated silkworms and developed special looms to weave silk cloth.
2500 B.C.	Linen found on Egyptian mummy woven at 540 threads per inch, as well made as that of today. Goddess Isis is shown in a pictograph holding a shuttle.
327 B.C.	Alexander the Great was amazed at the beautiful printed cotton being produced in India.
300 B.C.	Ancient Greeks and Romans developed an enormous trade in textiles.
75 B.C.	Silk became the luxury cloth in Rome.
63 B.C.	Cotton awnings were used in Rome.

THE MIDDLE AGES

768 A.D.	Charlemagne established a silk weaving industry at Lyons and imported wool from England.
900 A.D.	Alfred the Great encouraged expansion of the wool industry in England.
1120 A.D.	Henry I sponsored the first woolen cloth guild. He relocated skilled Flemish weavers to English villages to increase production.
1153 A.D.	First annual cloth fair held in England.
1200 A.D.	Spinning wheel was in common use.
1305 A.D.	Venice had 17,000 people engaged in weaving wool.

TEXTILE HISTORY TIMELINE - PAGE 2

MODERN TIMES

1533 A.D.	Pizarro reported that Peruvian spinning and weaving was superior to European.
1589 A.D.	William Lee invented a machine to knit hosiery.
Early 1600 A.D.	Textile workers in the Netherlands improved methods of dyeing and finishing cloth.
1631 A.D.	The Dutch East India Company imported fine calico from India.
1654 A.D.	English textile craftsmen were forbidden to emigrate to America.
1661 A.D.	A resident of Danzig, Poland built a power loom. The government had him drowned and destroyed the loom.
1667 A.D.	English law required all persons to be buried in woolen cloth. More cloth was being produced than could be sold.
1669 A.D.	The English colonies in America were forbidden from trading wool materials.
1696 A.D.	Irish weavers produced cloth less expensively than the English. Attempts were made to suppress the weavers. Irish linen was superior to all others.
1733 A.D.	John Kay, an Englishman, invented the flying shuttle loom.
1764 A.D.	James Hargreaves invented the spinning jenny, the first machine to spin more than one piece of yarn at a time.
1768 A.D.	Spinning and weaving contests held in America to oppose the Stamp Act. (Britain wanted to collect taxes on everything that was sold in the colonies. Americans opposed the tax because it violated the newly enunciated principle of "no taxation without representation.")
1769 A.D.	Richard Arkwright patented the water frame, a spinning machine that ran on water power.
1779 A.D.	Samuel Crompton invented the spinning mule, a machine that combined the spinning jenny and the water frame.
1785 A.D.	Edmund Cartwright patented the first power loom.

TEXTILE HISTORY TIMELINE- PAGE 3

1790 A.D.	Samuel Slater built the first water-powered machines in the United States for spinning cotton.
1793 A.D.	Eli Whitney invented the cotton gin.
1800 A.D.	Ireland exported 25 million yards of woven line.
1804 A.D.	The Jacquard loom used punched cards to enable a single weaver to produce complex patterned fabric. This is an early example of precomputer technology.
1816 A.D.	Large numbers of power looms were beginning to be installed in the factories in America.
1861 A.D.	Union soldiers wore uniforms that were machine-made. Confederate uniforms were still made primarily from handspun and handwoven fabric.
1884 A.D.	Hilaire Chardonnet developed the first manufactured fiber, a form of rayon.

THE TWENTIETH CENTURY

1900 A.D.	The Industrial Revolution completed sweeping spinning and weaving from the home workshops to the factories and mills.
1910 A.D.	Chardonnet's fiber first produced in the United States under the name of artificial silk, now known as rayon.
1935 A.D.	Wallace C. Carrothers developed nylon.
1940 to 1950 A.D.	Polyester, acrylic, and other artificial fibers were introduced.
1960 A.D.	Double-knit polyester fiber was introduced. Also, the Textile Fiber Product Identification Act became law.
1970 A.D.	Knitting machines controlled by computers produced fabrics with highly complex patterns at tremendous speeds.
Early 1980 A.D.	Robots were introduced into the textile industry.
Late 1980 A.D.	Textile mills used high-speed looms that had many tiny shuttles called darts instead of a single shuttle. Other looms wove with no shuttles at all; a jet of water or air carried the filling through the warp up to 1000 times a minute—four times faster than a shuttle on a standard high-speed loom.

TEXTILE FIBER PRODUCT IDENTIFICATION ACT (TFPIC)
1960

Some type of classification system has always been used to categorize fibers. However, the technological explosion in the fiber field during the 1950s made it necessary to develop a new system. A method to help consumers and students identify and understand the properties of the many fibers was needed. As a result, the Textile Fiber Product Identification Act became law in 1960. This legislation and several amendments provide that all man-made and synthetic fibers be grouped in generic (family) groups. Each group is composed of one or more fibers that have a similar chemical composition.

The major purpose of the Textile Fiber Product Identification Act is to protect producers and consumers against mislabeling or false advertising about the fiber content of textile fiber products. This law requires that:

1. Each fabric or textile product have an attached label, tag, stamp, or other identification that states the fiber, blend of fibers, or combinations of fibers present. These labels do not have to be permanently affixed but must be attached to the item at the time of sale.

2. Natural fibers must be listed by their common names. Man-made and synthetic fibers must be identified by their generic or family names. The generic or family name and trade names must be designated with equal predominance. Manufacturers may list their fiber trade names after the generic names. You can tell which is the trade name because it is capitalized and the generic name is not, except when the generic name is given entirely in capitals.

3. Each fiber in the fabric must be listed. The highest percentage fiber is listed first, the next highest second, and so on to the fiber with the least amount in the fabric. If there is less than 5 percent of a fiber present, it can be listed as "other fiber," unless its presence has a definite significance.

4. The garment manufacturer's name or registered identification number must be written on the tag or label. Very often the name on a garment tag is a "brand" name rather than the manufacturer's name. The number is preceded by a RN (Registered Number) or a WPL (Wool Products Labeling) number. Each letter-number combination indicates that a manufacturer is registered with the United States Federal Government. Consumers can find the manufacturer's name and address in a book titled RN and WPL Directory, copies of which can be found in many public libraries. If the manufacturer's registered identification number is sent to the Federal Trade Commission (FTC), the name and address of the manufacturer will be provided.

TEXTILE FIBER PRODUCT IDENTIFICATION ACT (TFPIC) - PAGE 2
1960

5. If the item is imported, the name of the country that processed it or the country where the product was made must be listed. In 1984, the TFPIA and other fiber-product labeling laws were amended to require that items made in the United States must state "Made in U.S.A."

The FTC is responsible for enforcing the Textile Fiber Product Identification Act. Consumers who have reason to believe textile products are improperly labeled, not labeled at all, or falsely advertised should contact the nearest FTC office.

ITEMS COVERED BY THE TEXTILE FIBER PRODUCTS IDENTIFICATION ACT

The act applies to the following textile products:

- wearing apparel
- accessories such as scarves, handkerchiefs, umbrellas, and parasols
- household linens, including tablecloths, napkins, doilies, dresser and furniture scarves, towels, washcloths, dishcloths, and ironing board covers
- home furnishings, including curtains, draperies, slip covers and coverlets for furniture, afghans and throws, floor coverings, stuffings in upholstered products, mattresses, and cushions
- miscellaneous items, including sleeping bags, hammocks, and flags
- narrow fabrics except packaged ribbons

TEXTILE FIBER PRODUCT IDENTIFICATION ACT (TFPIC)
FIBER CLASSIFICATIONS

These categories include the fibers most recognized and used by consumers.

A. Natural Fibers
  1. Cellulose-based
    - cotton
    - flax (linen)
    - ramie
    - jute
  2. Protein-based
    - wool
    - silk
    - specialty hair fibers such as angora, mohair, cashmere, and vicuna
  3. Rubber
  4. Asbestos

B. Man-Made Cellulose Fibers (Manufactured)

Generic Name	Trade Names
1. rayon	
cuprommonium	Bemberg
viscose	
• regular and high tenacity	Coloray, Fibro
• high-wet modulus	Avril, Prima, Zantrel
2. acetate	Celanese, Chromspun, Estron

C. Synthetic Fibers (Manufactured)

Generic Name	Trade Names
1. acrylic	Creslan, Orlon, Zefran
2. aramid	Kevlar, Nomex
3. modacrylic	SEF, Kanekalon
4. novoloid	Kynol
5. nylon	Anso, Antron, Qiana
6. nytril	(none in the United States)
7. olefin	Herculon, Marvess, Vectra
8. polyester	Dacron, Fortrel, Kodel
9. saran	Rovan
10. spandex	Lycra
11. vinyl	Kuralon, Mewlon
12. vinyon	Avtex, Rhovyl

○○○

TEXTILE
FIBER
PRODUCTS
IDENTIFICATION
ACT
1960

Name ______________________ Period ________ Date ______________

CLOTHING FIBERS

Directions: Fill in the following information as you view the video.

1. A ______________ is the basic building block of cloth.
2. What is cloth? ______________________________
3. What are yarns made from? ______________________________
4. Each of us uses about _______ pounds of textile fibers a year.
5. Fibers can be classified as ______________ or ______________.
6. Natural fibers have their origin from __________ or __________ __________
7. Synthetic fibers are called ______________ or ______________ fibers.
8. List four (4) natural fibers and three (3) synthetic fibers.

Natural ______________ ______________
______________ ______________

Synthetic ______________ ______________
______________ ______________

9. Synthetics do not __________ moisture, but natural fibers do.
10. Why are most T-shirts made from 100 percent cotton? ______________
11. Since synthetic fibers do not absorb water, they often develop __________ electricity or cling.
12. T F You cannot tell the fiber in a fabric just by looking at it.
13. T F Fiber content labels are not required on all clothing items.
14. T F A blended fabric always uses three (3) or more fibers.
15. T F Often a blend is one (1) natural and one (1) synthetic fiber used together.
16. T F Polyester/cotton is the most common blend of fibers.
17. T F By blending two (2) fibers you can have the advantages of both fibers.
18. T F To get the benefits of cotton or wool in blended fabrics, the cotton content must be at least 50 percent and the wool content must be at least 80 percent.
19. T F Fiber labels are only found in clothing items.

NATURAL FIBERS

20. __________ was used by Native Americans in about 700 A.D. and the Egyptians 4,000 years ago.

21. After the cotton flower drops from the plant, it is replaced with a pod called a __________ ________.

22. Cotton is no longer harvested by hand but by machines called __________ and __________.

CLOTHING FIBERS - PAGE 2

23. The ____________ _______ separates the fibers from the seeds.

24. The higher grades of cotton fibers are about _____inch(es) to _______inch(es) long. The longer fibers make a smoother fabric.

25. The highest grade of cotton is called _______ ___________________.

26. Cotton fabrics ____________ easily and shrink about _____percent unless pretreated to resist shrinking.

27. __________ is the most used fabric in the world, and the most used _________ fabric in the United States.

☺

28. ____________ is possibly the oldest fiber known to humans.

29. Wool is a _____________ substance, just like human hair.

30. The majority of wool comes from _____________.

31. The surface of the wool fiber ___________ water, and the inner core ____________ water.

32. Wool can absorb almost ____________ its own weight in water and still feel dry to the touch.

33. List three (3) characteristics that wool has because of its absorbency:
    1. ____
    2. ____
    3. ____

34. Wool is woven into fabric by interlacing the yarns on a loom.
    The lengthwise yarns are called the _________________.
    The crosswise yarns are called the ___________ or _______________.

☺

35. Linen is made from the fibers of the _________ plant.

36. Flax is grown and harvested mostly by hand in Western Europe, mainly in three (3) countries. What are they?

    ____________________ ______________________ ______________________

37. Linen has longer fibers than cotton. They are usually ____inch(es) to ____inch(es) long. This makes linen stronger and smoother than cotton.

38. List six (6) ways linen is used:
    1. ______________________________ 4. ______________________________
    2. ______________________________ 5. ______________________________
    3. ______________________________ 6. ______________________________

39. Linen is usually ________ expensive than cotton.

☺

CLOTHING FIBERS - PAGE 3

40. __________ has always been associated with beauty and luxury.
41. The process of making silk was invented in __________ about ________ years ago.
42. Silkworms used for making the silk fibers feed on ______________ leaves and eat ________________.
43. Each cocoon contains from ___________ to _________ yards of fibers.
44. A silk thread is as strong as a _________ of equal thickness.

☺

45. _________ is made from the _______ plant.
46. Ramie is ____________, _____________, and ________________.
47. Ramie fibers are usually used:

______ Alone ______ Blended with other fibers

SYNTHETIC (MANUFACTURED) FIBERS

48. _________________ is the most commonly used synthetic fiber.
49. Polyester's best quality is that it resists _________________.
50. Most synthetic fibers begin as a _________________ product.
51. Dupont introduced its DACRON brand of polyester in _________.

☺

52. __________ has some of the look and feel of silk.
53. Give six (6) examples of products made of nylon.

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________

54. Nylon has replaced _____________ as the fiber most used in carpets.
55. Nylon was introduced to consumers in ________ and gained acceptance first as nylon _____________ replaced those made of silk.

☺

56. Acrylic is a synthetic fiber that is made from ___________, _________, _______, _______, and ______________.
57. Acrylic imitates _______________ and has many of the same characteristics. It is ________ and ________ but does not have its ___________ _____________ ability.
58. A ___________/______________ blend is often used in sweaters.

CLOTHING FIBERS - PAGE 4

MAN-MADE (MANUFACTURED) FIBERS

59. ____________ and ______________ start life as trees. These fibers are made from chemically altered _____ ______.

60. Rayon was the ___________ man-made fiber used for clothing and dates back to the ________ war.

61. T F Rayon wrinkles terribly.

62. Until 1924, rayon was known as artificial __________.

63. Rayon is commonly used for __________ wear, and acetate is commonly used for ________ wear. Some other uses are:
Rayon: __________________ ________________________
Acetate: __________________ ________________________

☺

64. T F There is no one **best** fabric; it depends upon what it is to be used for.

Below are fabric products matched with a fiber. Most are rather poor matches. Explain what qualities of the fiber make it a poor choice for the product.

Wool/swimsuits Ex. = Wool is weak when wet; becomes heavy when it absorbs a lot of water; dries very slowly; may be rough and itchy to your skin; doesn't smell very pleasant when wet.

Nylon/T-shirts ______________________________________

Cotton/business suits ______________________________________

Polyester/underwear ______________________________________

Silk/stockings ______________________________________

Rayon/parachutes ______________________________________

Acrylic/towels ______________________________________

Silk/swimsuits ______________________________________

Wool/track suit ______________________________________

Rayon/backpacks ______________________________________

Polyester/cleaning cloth ______________________________________

Silk/window curtains ______________________________________

Nylon/sheets ______________________________________

Cotton/swimsuits ______________________________________

Name ____________________________ Period ________ Date ___________________

CLOTHING FIBERS

Directions: Fill in the following information as you view the video.

1. A ___fiber___________ is the basic building block of cloth.
2. What is cloth? _________yarns woven or knit together_________________
3. What are yarns made from? ____fibers twisted together__________________
4. Each of us uses about __60___ pounds of textile fibers a year.
5. Fibers can be classified as ___natural__________ or ___synthetic__________.
6. Natural fibers have their origin from _plants____ or _animal____ __protein__.
7. Synthetic fibers are called ___man-made____ or __manufactured______ fibers.
8. List four (4) natural fibers and three (3) synthetic fibers.

Natural ___wool_________________ ____linen_____________
___cotton_______________ ____silk______________
Synthetic ___nylon________________ ____acrylic___________
___polyester____________

9. Synthetic fibers do not __absorb_____ moisture, but natural fibers do.
10. Why are most T-shirts made from 100 percent cotton? __to absorb perspiration__
11. Since synthetic fibers do not absorb water, they often develop ___static______ electricity or cling.
12. T F You cannot tell the fiber in a fabric just by looking at it.
13. T F Fiber content labels are not required on all clothing items.
14. T F A blended fabric always uses three (3) or more fibers.
15. T F Often a blend is one (1) natural and one (1) synthetic fiber used together.
16. T F Polyester/cotton is the most common blend of fibers.
17. T F By blending two (2) fibers you can have the advantages of both fibers.
18. T F To get the benefits of cotton or wool in blended fabrics, the cotton content must be at least 50 percent and the wool content must be at least 80 percent.
19. T F Fiber labels are only found in clothing items.

NATURAL FIBERS

20. ___Cotton_____ was used by Native Americans in about 700 A.D. and the Egyptians 4,000 years ago.

21. After the cotton flower drops from the plant, it is replaced with a pod called a __cotton____ __boll_.

22. Cotton is no longer harvested by hand but by machines called __strippers___ and __pickers____.

CLOTHING FIBERS - PAGE 2

23. The ___cotton___ __gin__ separates the fibers from the seeds.

24. The higher grades of cotton fibers are about _3/4_inch(es) to ___2___inch(es) long. The longer fibers make a smoother fabric.

25. The highest grade of cotton is called _good__ ___middling________.

26. Cotton fabrics _wrinkle____ easily and shrink about __3__percent unless pretreated to resist shrinking.

27. Cotton is the _most___ used fabric in the world, and the most used __natural__ fabric in the United States.

☺

28. __Wool______ is possibly the oldest fiber known to humans.

29. Wool is a __protein____ substance, just like human hair.

30. The majority of wool comes from __sheep______.

31. The surface of the wool fiber _repels____ water, and the inner core __absorbs___ water.

32. Wool can absorb almost __double____ its own weight in water and still feel dry to the touch.

33. List three (3) characteristics that wool has because of its absorbency:
    1. ___Resists wrinkles ____________________________________
    2. ___Flame resistant _____________________________________
    3. ___Reduces static electricity ______________________________

34. Wool is woven into fabric by interlacing the yarns on a loom.
    The lengthwise yarns are called the ____warp_________.
    The crosswise yarns are called the __weft_____ or ___filling_____.

☺

35. Linen is made from the fibers of the _flax____ plant.

36. Flax is grown and harvested mostly by hand in Western Europe, mainly in three (3) countries. What are they?
    __Belgium____________ __Netherlands________ ____France_____________

37. Linen has longer fibers than cotton. They are usually __6__inch(es) to __20__inch(es) long. This makes linen stronger and smoother than cotton.

38. List six (6) ways linen is used:
    1. ___bed coverings______________ 4. ______wall covering______________
    2. ___handkerchiefs______________ 5. ______draperies_________________
    3. ___fine fashion/suits____________ 6. ______upholstery________________

39. Linen is usually __more__ expensive than cotton.

☺

CLOTHING FIBERS - PAGE 3

40. _Silk_____ has always been associated with beauty and luxury.
41. The process of making silk was invented in _China_ about __5,000__ years ago.
42. Silkworms used for making the silk fibers feed on ___mulberry____________ leaves and eat __continuously_______.
43. Each cocoon contains from __900______ to __1,300___ yards of fibers.
44. A silk thread is as strong as a _wire____ of equal thickness.

☺

45. _Ramie___ is made from the __ramie__ plant.
46. Ramie is __strong____, __durable____, and __absorbent_____.
47. Ramie fibers are usually used:
    ______ Alone __XX__ Blended with other fibers

SYNTHETIC (MANUFACTURED) FIBERS

48. __Polyester_______ is the most commonly used synthetic fiber.
49. Polyester's best quality is that it resists ___wrinkling______.
50. Most synthetic fibers begin as a __petroleum______ product.
51. Dupont introduced its DACRON brand of polyester in __1951___.

☺

52. __Nylon___ has some of the look and feel of silk.
53. Give six (6) examples of products made of nylon.
    1. __Women's stockings__________
    2. __Parachutes_________________
    3. __Roadbeds__________________
    4. ___Netting______________________
    5. ___Outdoor/sports gear____________
    6. ______________________________
54. Nylon has replaced ___wool______ as the fiber most used in carpets.
55. Nylon was introduced to consumers in _1939___ and gained acceptance first as nylon _stockings___ replaced those made of silk.

☺

56. Acrylic is a synthetic fiber that is made from _coal______, __air___, __water_, __oil__, and __limestone____.
57. Acrylic imitates ___wool________ and has many of the same characteristics. It is _warm___ and _soft___ but does not have its _water_____ _handling____ ability.
58. A __cotton____/__acrylic______ blend is often used in sweaters.

CLOTHING FIBERS - PAGE 4

MAN-MADE (MANUFACTURED) FIBERS

59. __Rayon______ and __acetate_______ start life as trees. These fibers are made from chemically altered _wood_ _pulp__.

60. Rayon was the __first_____ man-made fiber used for clothing and dates back to the __Civil__ War.

61. T F Rayon wrinkles terribly.

62. Until 1924, rayon was known as artificial __silk_____.

63. Rayon is commonly used for __outer____ wear, and acetate is commonly used for __under_ wear. Some other uses are:
    Rayon: __artificial hearts______ ____________________________
    Acetate: ____________________ ____________________________

☺

64. T F There is no one **best** fabric; it depends upon what it is to be used for.

Below are fabric products matched with a fiber. Most are rather poor matches. Explain what qualities of the fiber make it a poor choice for the product.

Wool/swimsuits Ex. = Wool is weak when wet; becomes heavy when it absorbs a lot of water; dries very slowly; may be rough and itchy to your skin; doesn't smell very pleasant when wet.

Nylon/T-shirts ___nylon is non-absorbent; would be hot_________________________

Cotton/business suits ____wrinkles too easily; wouldn't hold its shape______________

Polyester/underwear ___polyester is non-absorbent; would be hot_________________

Silk/stockings __silk isn't as stable as nylon; wouldn't hold shape as well____________

Rayon/parachutes __rayon isn't strong enough; would split in thrust of air____________

Acrylic/towels __acrylic is non-absorbent; wouldn't get you dry___________________

Silk/swimsuits __silk shows water spots and doesn't hold dyes well; not sun friendly___

Wool/track suit _wool is weak when wet; becomes heavy with water; odor unpleasant_

Rayon/backpacks ___rayon isn't strong enough; would split with wear_____________

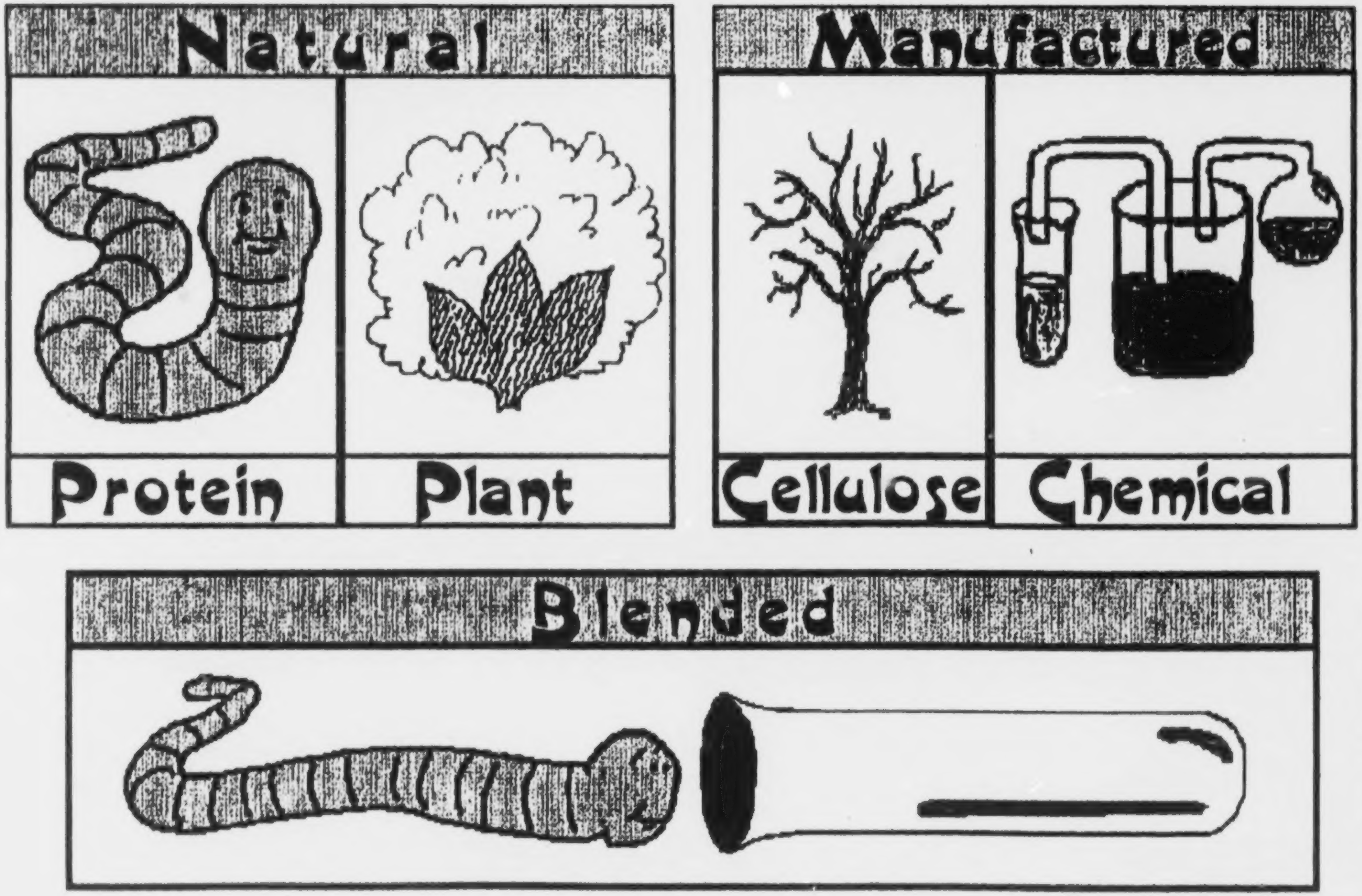
Polyester/cleaning cloth __polyester is non-absorbent; wouldn't pick up dirt, etc. _____

Silk/window curtains __silk isn't sun-friendly; would rot quickly____________________

Nylon/sheets __nylon isn't absorbent; body perspiration wouldn't be absorbed _______

Cotton/swimsuits __by itself, cotton doesn't hold its shape when wet; suit would fall off_

FIBERS: Natural or Manufactured


Natural
Manufactured
Protein
Plant
Cellulose
Chemical
Blended

COTTON

Cotton is fun!

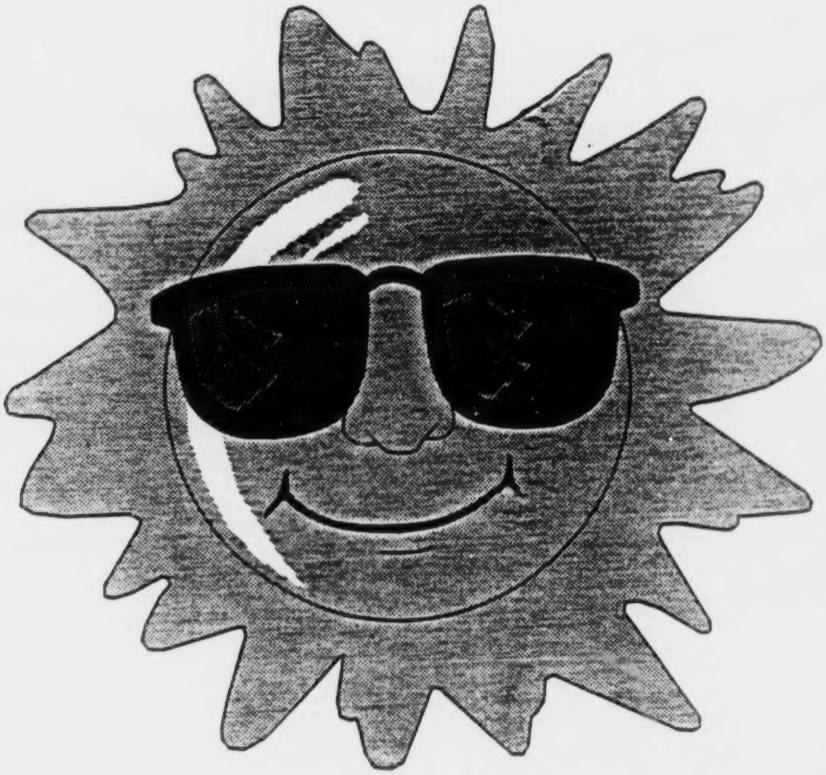
Advantages:

- *Strong and durable*
- *Absorbent*
- *Serviceable*
- *Dries quickly*
- *Good wet strength*
- *Dyes and prints readily*
- *Accepts finishes easily*

Disadvantages:

- *Lacks elasticity*
- *Wrinkles easily*
- *Weakened by mildew*
- *Prone to shrinkage*

Cotton is a natural fiber of plant origin.

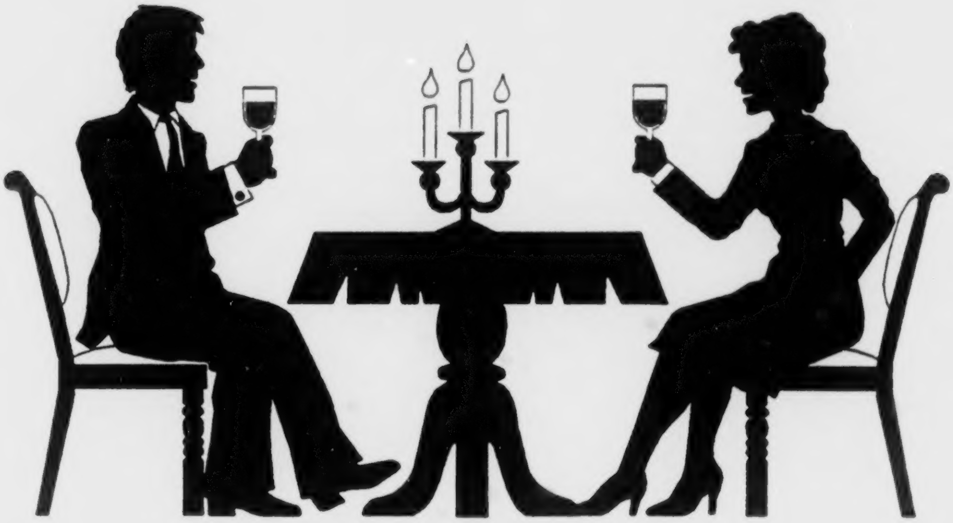


LINEN

Linen is comfortable in warm weather.

Advantages:	***Disadvantages:***
****** Strong and durable***	****** Wrinkles easily***
****** Dries quickly***	****** Prone to shrinkage***
****** Dyes well***	****** Susceptible to mildew***
****** Absorbent***	

Linen is a natural fiber of plant origin.



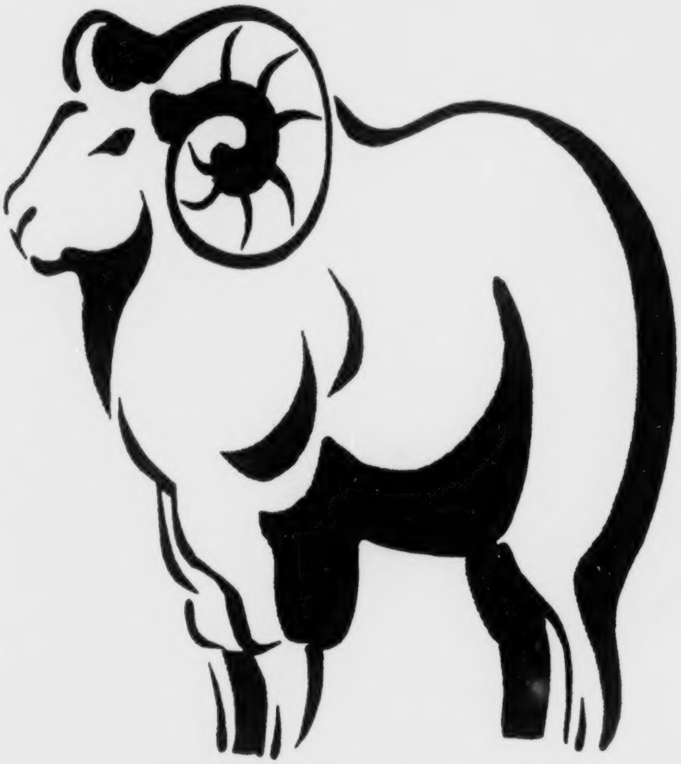
SILK

Silk is romantic and elegant.

Advantages:	***Disadvantages:***
*** Luxurious**	*** Yellows with age**
*** Has elasticity**	*** Weakened by sunlight**
*** Wrinkle resistant**	*** Susceptible to insect damage**
*** Absorbent**	
*** Dyes easily**	

Silk is a natural fiber of animal origin.

○○○



WOOL

Wool is curly and warm.

Advantages:	***Disadvantages:***
**** Warm and soft***	**** Sensitive to alkaline substances***
**** Resilient***	**** Shrinks and mats easily***
**** Breathes for comfort***	**** Susceptible to moths***
**** Dyes easily***	**** Heat sensitive***
**** Repels and absorbs moisture***	

Wool is a natural fiber of animal origin.

ACETATE

Acetate is a decorative fabric.

Advantages:	***Disadvantages:***
**** Absorbent***	**** Poor wet strength***
**** Generally colorfast***	**** Heat sensitive***
**** Luxurious feel***	**** Soluble in acetone***
**** Resilient***	**** Generates static electricity***
**** Inexpensive***	

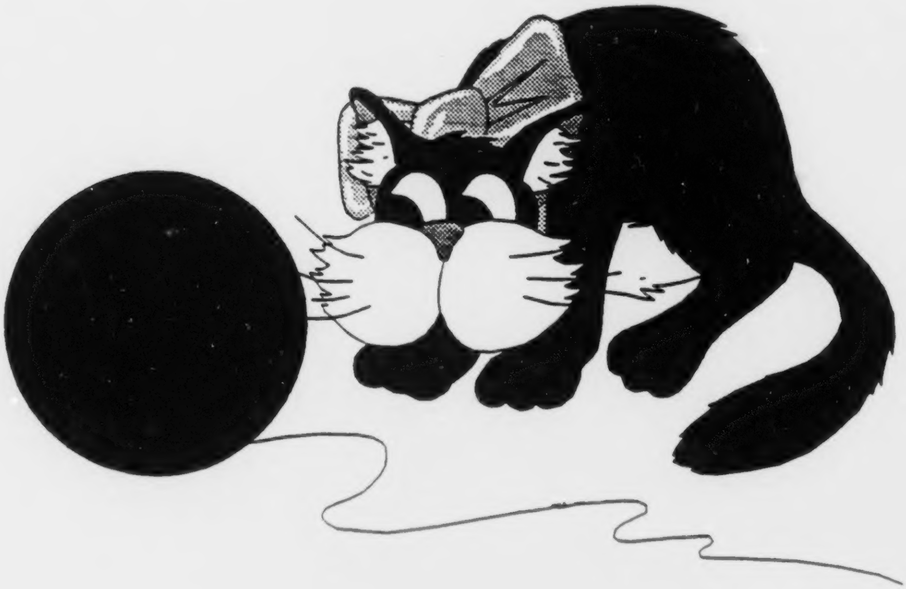
Acetate is a man-made fiber of cellulose origin.

RAYON

Rayon was the first manufactured fiber.

Advantages:	***Disadvantages:***
**** Inexpensive***	**** Poor wet strength***
**** Dyes and prints easily***	**** Low resiliency***
**** Absorbent***	**** Wrinkles easily***
**** Accepts finishes readily***	**** Weakened by sunlight***

Rayon is a man-made fiber of cellulose origin.



ACRYLIC

Acrylic fibers are kitten-soft and fur-like.

Advantages:	***Disadvantages:***
**** Strong***	**** Pilling***
**** Good elasticity***	**** Holds oily stains***
**** High bulking power***	**** Absorbency limited***
**** Dimensionally stable***	
**** Can be heat set***	

Acrylic is a synthetic fiber of chemical origin.

NYLON

Nylon is the strong man of the synthetic fibers.

Advantages:	***Disadvantages:***
**** Strong***	**** Non-absorbent***
**** Quick drying***	**** Damaged by sunlight***
**** High wet strength***	**** Picks up stray dyes***
**** Mildew and insect resistant***	

Nylon is a synthetic fiber of chemical origin.

POLYESTER

Polyester pops right back into shape.

Advantages:	***Disadvantages:***
**** Strong***	**** Light colors discolor***
**** Wrinkle resistant***	**** Holds oily stains***
**** Can be heat set***	**** Non-absorbent***
**** Dimensionally stable***	

Polyester is a synthetic fiber of chemical origin.

Name ______________________ Period ________ Date ______________

IN THE BEGINNING...RAW FIBERS

Directions: Fill in the following information about each fiber as it is discussed.

Fiber Name	Description	Advantages	Disadvantages
____________	____________	____________	____________
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FIBERS RESEARCH

Directions: Research for the information below on one of the following fibers.

NATURAL FIBERS
- Cotton
- Flax (linen)
- Ramie
- Silk
- Wool

MANUFACTURED FIBERS
- Rayon
- Polyester
- Acrylic
- Nylon
- Acetate
- Spandex

Provide the following information:

1. History of the fiber, when it was first used for clothing. If you are researching a manufactured fiber, tell who invented it and when.
2. Is it a natural or manufactured fiber? If it is a natural fiber, is its origin animal or plant? If it is a manufactured fiber, is its origin cellulose or chemical?
3. Special properties of the fiber. (What characteristics does it add to the fabric, etc.)
4. How should you care for this fiber? Are there special precautions to take in caring for it?
5. What are the advantages of this fiber?
6. Does this fiber have any disadvantages to it? (Does it pill, shrink, etc.?)
7. General uses of fabrics from this fiber.
8. How does it respond to the burn test?
9. Find several samples of fabric from this fiber to show the class.

This report should be two (2) typewritten pages long. Any visuals or posters you may want to add to this report will be considered as extra credit.

Name ____________ Period ______ Date ______

NATURAL FIBERS CHART

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
FIBER ORIGIN	PROTEIN/CELLULOSE	BURN TEST	CARE

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
FIBER ORIGIN	PROTEIN/CELLULOSE	BURN TEST	CARE

Name ____________ Period ______ Date ______

MANUFACTURED FIBERS CHART

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
FIBER ORIGIN		BURN TEST	CARE

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
FIBER ORIGIN		BURN TEST	CARE

NATURAL FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Cotton	• Strong, durable • Supports mildew growth • Absorbs moisture well • Does not spring back into shape	Blouses Dresses Underwear T-Shirts Shirts Jeans Skirts Sportswear Sheets Towels	• An all cotton garment will be comfortable in warm weather. • Wrinkles easily without special finish. • Needs to be ironed at high temperature unless fabric has wrinkle-resistant finish. • Will mildew if stored damp or in damp place. • Very durable; withstands much wear. • Washes easily if colorfast.
FIBER ORIGIN	**PROTEIN/CELLULOSE**	**BURN TEST**	**CARE**
Cotton plant	Cellulose	White ash	• Wash in warm/cold water • Medium dryer • Hot/medium iron

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Ramie	• Strong, durable • Supports mildew growth • Absorbs moisture	Sweaters Dresses Skirts Suits	• A ramie blend garment will be very durable; will withstand wear. • Will have a silk-like luster. • Tends to "grow" in size
FIBER ORIGIN	**PROTEIN/CELLULOSE**	**BURN TEST**	**CARE**
Ramie plant	Cellulose	White ash	• Wash in cold water • Lay flat to dry

NATURAL FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Flax (Linen)	• Strong, durable • Supports mildew growth • Absorbs moisture well • Wrinkles terribly	Blouses Dresses Skirts Suits Table linens	• An all linen garment will be very very durable; withstand wear. • Be comfortable in warm weather. • Wrinkles very easily. • Washes easily if colorfast. • Needs to be ironed at high temperature unless it has wrinkle resistant finish. • Mildews if stored in a damp place.

FIBER ORIGIN	PROTEIN/CELLULOSE	BURN TEST	CARE
Flax plant	Cellulose	White ash	• Wash in warm/cold water • Medium dryer • Hot/medium iron

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Wool	• Warm • Durable • Returns to original shape quickly • Absorbs moisture • Absorbs odors • Resists wrinkling	Sweaters Suits Gloves Skirts Sportswear Socks Slacks Coats	• An all wool garment will be warmer than cotton, silk, or linen. • Is durable; withstands wear. • Retains shape for long periods of time.

FIBER ORIGIN	PROTEIN/CELLULOSE	BURN TEST	CARE
Sheep	Protein	White ash	• Generally dry cleaned. • Needs careful handling if washed. • Needs to be pressed at low temperature.

NATURAL FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Silk	• Smooth and soft • Lustrous • Strong yet delicate • Hangs eloquently	Skirts Blouses Dresses Suits Scarves Neckties	• An all silk garment feels luxurious. • Needs low temperature for ironing. • Shows water spots unless it has a special finish. • Dyes do not set well and are easily ruined.

FIBER ORIGIN	PROTEIN/CELLULOSE	BURN TEST	CARE
Silkworm	Protein	White ash	• Garments need to be hand washed and ironed or dry cleaned.

MANUFACTURED FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Acetate	• Lustrous • Does not shrink • Lacks strength • Resists damage and mildew • Lightweight	Underwear Sportswear Dresses Blouses Shirts Neckties Scarves	• An all acetate garment will drape well. • Resists fading from sunlight or perspiration. • Can be damaged by acetone (nail polish remover).

FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	• Outerwear needs to be dry cleaned. • Underwear washed in cold water; low dryer.

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Acrylic	• Lightweight • Warm • Non-absorbent • Dries quickly • Springs back into shape quickly • Resists wrinkles	Sportswear Knitted garments Ski wear	• An all acrylic garment will be soft, warm, and lightweight. • Resists damage from sunlight, oil, chemicals. • Tends to build up static electricity. • Tends to "pill" on surface.

FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	• Wash in cold water; low dryer. • Low/medium heat on iron.

MANUFACTURED FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Modacrylic	• Lightweight • Warm • Springs back into shape quickly • Non-absorbent • Resists burning • Dries quickly • Resists wrinkles	Sportswear Sleepwear Knitted garments Fur-like garments	• An all modacrylic garment will not burn readily. • Garment will be soft, warm, and lightweight. • Tends to build up static electricity. • Withstands wear; durable.
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, irregular black bead	• Wash in cold water; low dryer. • Low/medium heat on iron.

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Nylon	• Strong; durable • Does not mildew • Lustrous • Does not shrink • Non-absorbent	Sportswear Swimwear Hosiery Underwear Raincoats Ski wear	• An all nylon garment will not mildew. • Absorbs oily stains and leaves a spot. • Can be damaged by strong sunlight. • Tends to build up static electricity. • Durable; withstands wear.
FIBER ORIGIN		BURN TEST	CARE
Chemical		Hard, round, gray or fawn-colored bead	• Wash in cold water; low dryer. • Low/medium heat on iron. • Washes easily.

MANUFACTURED FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Rayon	• Absorbs moisture • Supports mildew • Does not spring back to shape • Lacks strength • Is heat sensitive • Wrinkles easily	Sportswear Blouses Shirts Neckties	• Rayon garments are comfortable in warm weather. • Burns readily. • Mildews if stored in damp place. • Not as durable as some other fibers. • May be damaged by sunlight or acid solutions.
FIBER ORIGIN		**BURN TEST**	**CARE**
Chemical		Grayish-black ash	• Wash by hand in cold water; hang to dry (or dry clean). • Low heat on iron.

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Polyester	• Strong; durable • Does not absorb moisture • Absorbs oil and grease; leaves stains • Holds shape; stable • Heat sensitive • Resists wrinkling	Sportswear Suits Blouses Dresses Shirts Scarves Neckties Household items	• Washes easily and dries quickly. • Retains a heat-set. • Will melt if ironed at too high a temperature.
FIBER ORIGIN		**BURN TEST**	**CARE**
Chemical		Hard, brownish beige bead	• Wash in cold water; low heat on dryer or hang to dry. • Low heat on iron.

MANUFACTURED FIBERS CHART - TEACHER KEY

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Spandex	• Withstands wear • Strong; durable • Lightweight • Heat sensitive • Stretches yet retains shape • Does not absorb moisture	Girdles, bras Swimwear Ski wear Support hose Garments that need a lot of stretch Sportswear	• Stretches with body but returns to original shape when wet or dry. • Not damaged by perspiration, body oils, or chemicals. • Can be damaged by heat.
FIBER ORIGIN		**BURN TEST**	**CARE**
Chemical		Hard, irregular black bead	• Wash in cold water; low heat on dryer or hang to dry. • Low heat on iron.

FIBER NAME	FIBER CHARACTERISTICS	CLOTHING/ USES	HOW THE FIBER AFFECTS CLOTHING CHARACTERISTICS
Triacetate	• Does not absorb moisture • Lacks strength • Springs back into shape • Resists wrinkling • Dries quickly • Not very durable	Sportswear Dresses Garments with pleats Skirts	• Garments of triacetate maintain a crisp finish. • Not damaged by heat. • Builds up static electricity. • Dries quickly. • Not as durable as garments from other fibers.
FIBER ORIGIN		**BURN TEST**	**CARE**
Chemical		Hard, irregular black bead	• Wash in warm/cold water; low/medium heat on dryer or hang to dry. • Low/medium heat on iron.

FIBER BURN TEST

It has happened to everyone. The tag on a garment has been lost or obliterated and you cannot recall whether the fabric is wool, acrylic, cotton, or silk—something you need to know for both cleaning and care. A few simple burning tests, though not entirely foolproof, will give you some indication of the fabric's makeup. Place the yarns in petri dishes and light them with a match or cigarette lighter. Then compare the reaction, odor, and residue with those described in the chart below. Things to look for as the yarns burn:

1) How rapidly did the fabric burn?
2) Did you observe any sizzling of the fabric as it burned?
3) Did you notice an odor?
4) What residue was left? Ash or bead? Or both?

FIBER	REACTION TO FLAME	ODOR	RESIDUE
Cotton	Ignites and burns with Orange-yellow flame	Burning paper	Gray ash
Linen	Same as cotton	Burning paper	Gray ash
Wool	Burns slowly with small Sizzling flame Usually self-extinguishing	Burning hair	Crisp, irregular, crushable black bead
Silk	Ignites sparking flame Usually self-extinguishing	Burning hair Not as pungent as wool	Crisp, round, black bead that is crushable
Rayon	Ignites readily Burns rapidly Sizzles slightly	Burning paper More pungent than cotton	Grayish-black ash
Acetate-Triacetate	Ignites and sizzles Melts as it burns Has orange flame	Acid odor, like vinegar	Hard, irregular black bead
Nylon	Shrinks from heat; melts Burns with difficulty	Celery	Hard, round, gray or fawn-colored bead
Acrylic	Melts as it burns Fuses as flame is approached Bright sputtering flame Black smoke	Acid-like	Hard, irregular black bead
Polyester	Fuses and shrinks from flame Burns slowly; melting Self-extinguishing	Heavy pungent	Hard, brownish beige bead

FIBERS UNDER THE MICROSCOPE

* * *

Name of fiber ____________________ | Name of fiber ____________________
Describe appearance of fiber: | Describe appearance of fiber:
________________________________ | ________________________________
________________________________ | ________________________________
Draw the magnified fibers here: | Draw the magnified fibers here:
|
|
|

* * *

Name of fiber ____________________ | Name of fiber __________________
Describe appearance of fiber: | Describe appearance of fiber:
________________________________ | ________________________________
________________________________ | ________________________________
Draw the magnified fibers here: | Draw the magnified fibers here:
|
|
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* * *

Name of fiber ____________________ | Name of fiber ____________________
Describe appearance of fiber: | Describe appearance of fiber:
________________________________ | ________________________________
________________________________ | ________________________________
Draw the magnified fibers here: | Draw the magnified fibers here:
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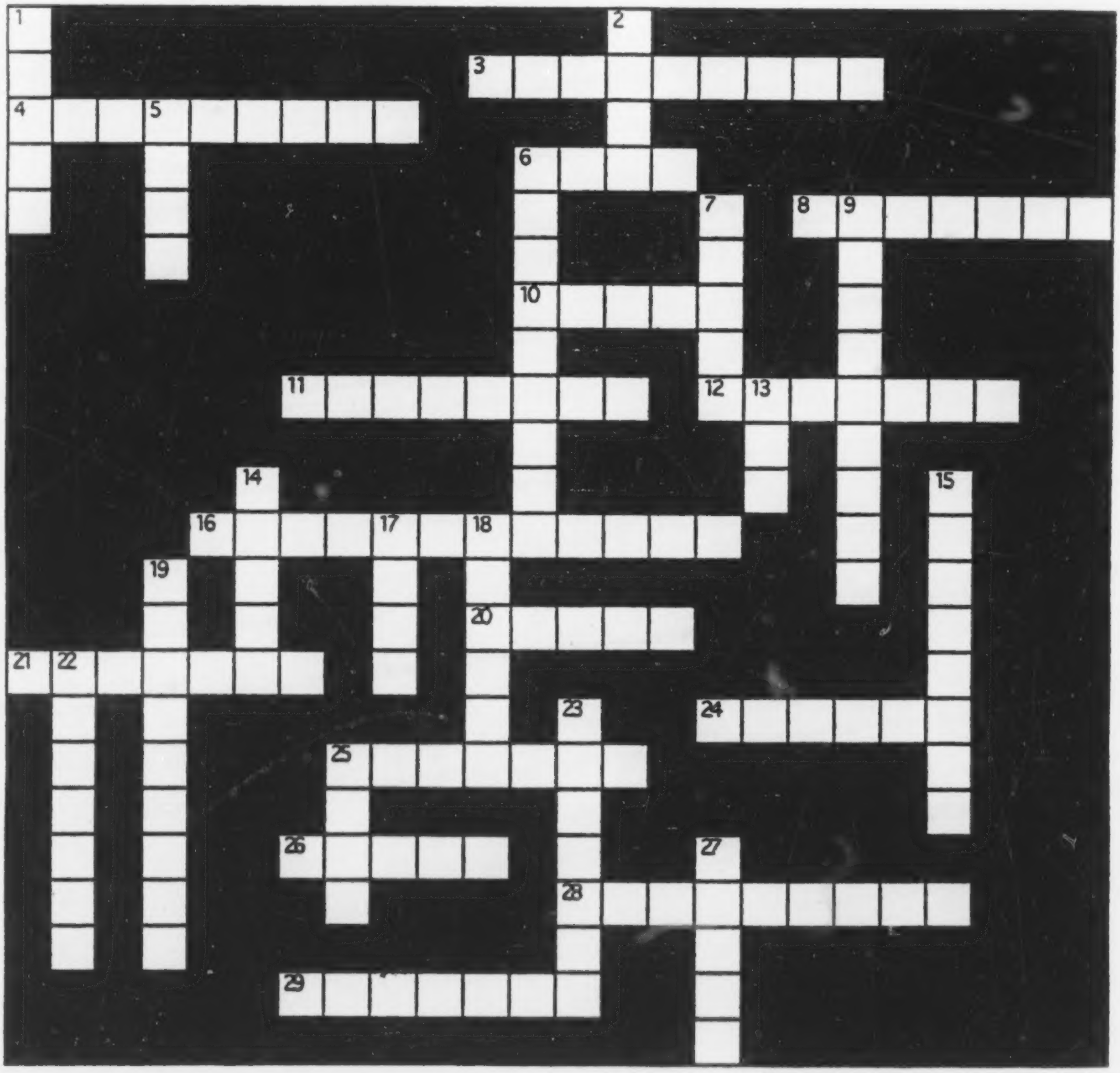
* * *

Name ______________________________ Period ________ Date ________________

FEISTY FIBERS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Name ______________________________ Period ________ Date ________________

FEISTY FIBERS - CLUES

ACROSS

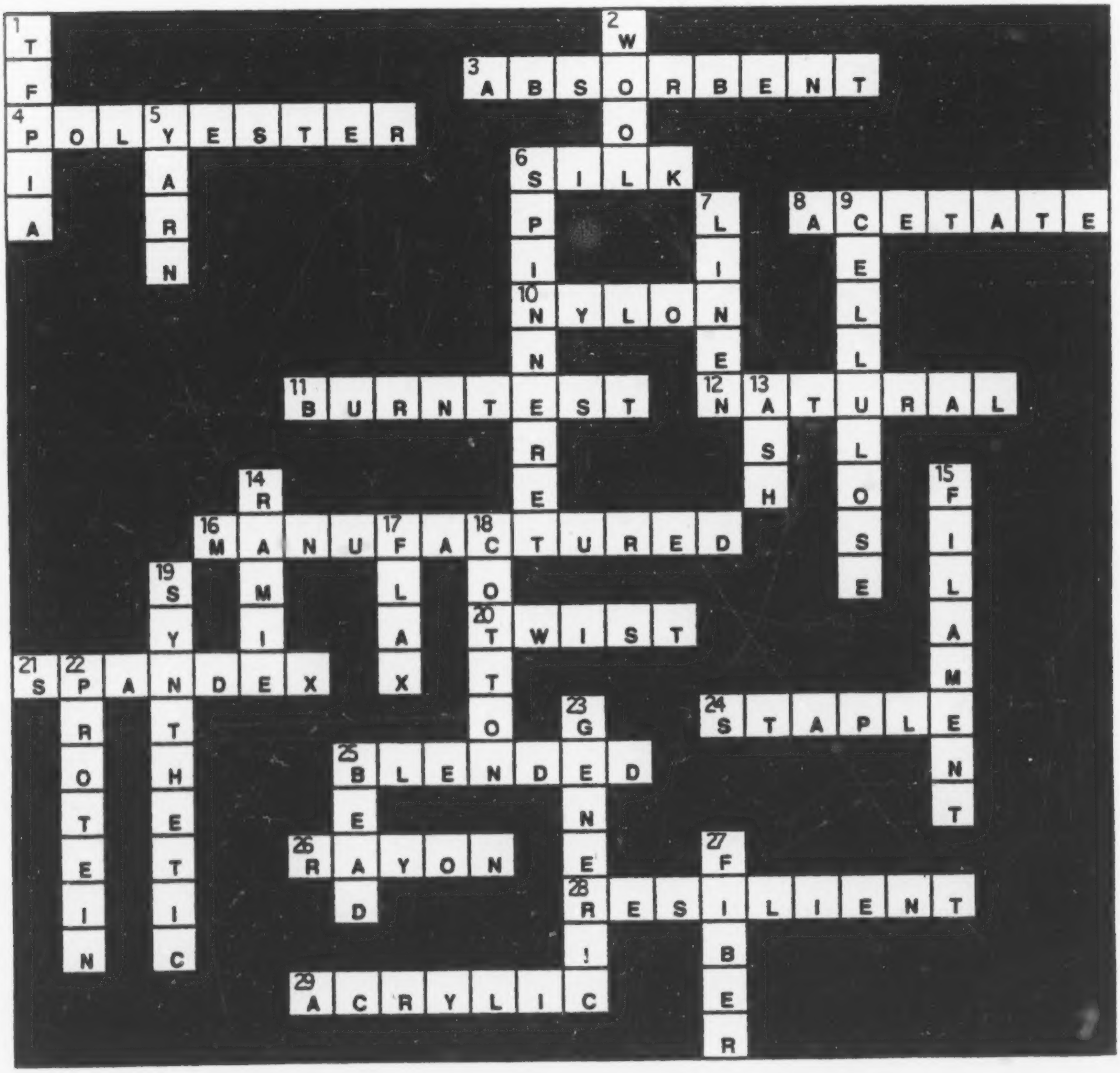
3. The ability of a fiber to hold moisture.
4. A synthetic fiber which washes easily and resists wrinkling but retains oily stains.
6. A natural, lustrous, lightweight fiber from worms.
8. A synthetic fiber which does not burn and is resistant to sun and moisture.
10. A synthetic fiber which is very strong but is dulled by chlorine bleach.
11. What you can do to see if the fiber content is natural or synthetic.
12. Fibers that come from animal or vegetable sources.
16. Fibers that do not come from animal or vegetable sources.
20. The spiral arrangement of the fibers around the axis of the yarn; binds the fibers together and gives the yarn strength.
21. A synthetic fiber that has a lot of stretch to it.
24. Fibers that are short enough to be measured in inches.
25. When two or more fibers are put together in a fabric.
26. A synthetic fiber made from wood pulp.
28. The ability of a fiber to hold its shape; very little wrinkle.
29. A synthetic fiber which is soft, bulky, washable, and wool-like.

DOWN

1. The abbreviation for the Textile Fiber Product Identification Act.
2. A natural, warm, springy fiber from sheep.
5. Fibers long enough to be measured in yards.
6. A device similar to a shower head through which chemical solutions used in man-made fabrics are forced.
7. A natural fiber from flax plants.
9. A term for natural fibers made from vegetables.
13. The kind of residue when natural fibers are burned.
14. A natural fiber from a plant by the same name.
15. The dye is put into this fiber form before it is made into fabric.
17. The name of the plant from which linen is made.
18. A natural, absorbent, soft, washable fiber from a plant.
19. Another term for man-made fibers.
22. A term for natural fibers with an animal origin.
23. A family name; not a trade name.
25. The kind of residue when synthetic fibers are burned.
27. A fine thread-like particle of plant, animal, or chemical.

Name ______________________ Period ________ Date ______________

FEISTY FIBERS


1 TFPIA
2 WOOL
3 ABSORBENT
4 POLYESTER
5 YARN
6 SILK
6 SPINNERE
7 LINEN
8 ACETATE
9 CELLULOSE
10 NYLON
11 BURNTEST
12 NATURAL
13 ASH
14 RAMIE
15 FILAMENT
16 MANUFACTURED
17 FLAX
18 COTTO
19 SYNTHETIC
20 TWIST
21 SPANDEX
22 PROTEIN
23 GENERIC
24 STAPLE
25 BLENDED
25 BEAD
26 RAYON
27 FIBER
28 RESILIENT
29 ACRYLIC

Name ______________________ Period ________ Date ______________

FIBERS FOR FUN

Fibers are the strands from which threads or yarns are spun. Each fiber has distinct characteristics, and the fabrics made from the different fibers have a variety of qualities. Certain fabrics adapt well for certain purposes, while other fabrics suit different purposes because of the nature of their fibers. Fibers can be divided into three classes, as shown below.

Directions: Arrange all of the fibers into the three categories, writing their numbers as well as their names under the headings. You can determine whether you have listed them correctly by adding up the totals of the three columns. All of the columns should have the same total. It would probably be smart to work this with a pencil rather than a pen.

1. rayon
2. linen
3. acetate
4. cotton
5. triacetate
6. nylon
7. glass
8. silk
9. polyester
10. metallic
11. acrylic
12. wool

Natural fibers from animal and vegetable sources (cellulose and protein)		Man-made fibers from vegetable and mineral sources		Synthetic fibers created from basic chemicals	
____	__________	____	__________	____	__________
____	__________	____	__________	____	__________
____	__________	____	__________	____	__________
____	__________	____	__________	____	__________
____	__________	____	__________	____	__________
Total ______		Total ______		Total ______	

Name ______________________ Period ________ Date ______________

FIBERS FOR FUN

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3. acetate
4. cotton
5. triacetate
6. nylon
7. glass
8. silk
9. polyester
10. metallic
11. acrylic
12. wool

Natural fibers from animal and vegetable sources (cellulose and protein)		Man-made fibers from vegetable and mineral sources		Synthetic fibers created from basic chemicals	
2	linen	1	rayon	6	nylon
4	cotton	3	acetate	9	polyester
8	silk	5	triacetate	11	acrylic
12	wool	7	glass		
		10	metallic		
Total 26		Total 26		Total 26	

FROM FILAMENTS TO FABRIC

The types of fibers that are used to make yarns and the ways the fibers are made into yarns affect the appearance and performance characteristics of yarns. Examples of appearance characteristics are yarn color, texture, diameter, and complexity. Yarn complexity refers to the number and types of strands that are twisted together to make yarn. Performance characteristics of yarns refer to such qualities as strength, durability, and flexibility. Appearance and performance characteristics are important because they affect the fabrics that are made from the yarns.

The fiber content of a yarn will affect both its appearance and performance. Different fibers have different colors in their natural or undyed state. The yarns may be left in the natural color of the fiber or fibers from which they are made. If the yarns are dyed, the fiber contents affect how the dye is accepted. This affects the final color of the yarn and how well the color lasts.

Natural and manufactured fibers are lustrous and smooth, and yarns made of these fibers also have those characteristics. Some wool fiber are coarse or thick, and those characteristics are present in yarns made from those fibers.

The number of strands that are twisted together to make a yarn and how loosely or tightly the strands are twisted together affect the texture and diameter of yarns. For example, a loosely twisted yarn with many strands will have a thick diameter and may look rougher than a tightly twisted yarn made from fewer strands.

The fiber strength and the way fibers are twisted together contribute to the strength, durability, and flexibility of yarns. Flexible fibers help to make flexible yarns. Tightly twisted fibers help to make stronger and more durable yarn than loosely twisted fibers. Loosely twisted fibers contribute to the flexibility of yarns. Some flexibility may be lost, however, when fibers are twisted tightly.

Yarns may be made of only one fiber type, such as cotton, wool, or nylon. Yarns may also be made of two or more fiber types blended together. Common fiber blends are polyester and cotton, ramie and cotton, wool and nylon.

Triacetate is made by only one manufacturer under the trade name Arnel. It launders readily and can be heat set. Since triacetate absorbs moisture, it dries quickly but feels clammy next to the skin.

BULLETIN BOARD DIAGRAM

FROM

FILAMENT

THE SMALLEST & BEGINNING COMPONENT OF FABRIC; THEY ARE TWISTED INTO FIBERS

TO

FIBER

THREAD-LIKE STRANDS MADE OF FILAMENTS; USED FOR MAKING FABRIC OR SPINNING INTO YARN

TO

YARN

STRANDS OF FIBERS TWISTED TOGETHER

TO

FABRIC

THE RESULT OF WEAVING, KNITTING, OR PRESSING YARNS TOGETHER

FILAMENT

THE SMALLEST AND BEGINNING COMPONENT OF FABRIC; THEY ARE TWISTED INTO FIBERS

FIBER

THREAD-LIKE STRANDS MADE OF FILAMENTS; USED FOR MAKING FABRIC OR SPINNING INTO YARN

YARN

STRANDS OF FIBERS TWISTED TOGETHER

FABRIC

THE RESULT OF WEAVING, KNITTING, OR PRESSING YARNS TOGETHER

FROM

TO

TO

TO

WEAVING PATTERNS

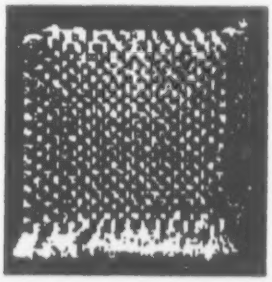
A fabric that is used for clothing must be flexible enough to fit and drape on the human body. Although they are ancient methods, weaving and knitting continue to be the fabric construction methods that best provide these characteristics for apparel fabrics. However, modern technology has provided many loom modifications and variations in knitting machines to give consumers a wide variety of choices in woven and knit fabrics. Manufacture of the fabrics known as "non-wovens" has increased during the past decade and is predicted to become a more important type of apparel fabric in the future.

WOVENS

Most fabrics are woven on looms designed to make very plain fabrics. These looms can be modified by adding special attachments that produce more intricate weaves.

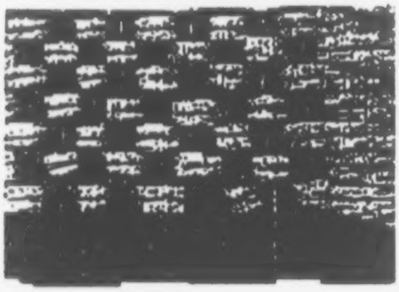
Plain Weave Variations

A variety of appearances can be achieved in plain-weave fabrics without using special loom attachments. Using fine yarns produces sheer fabrics such as organdy, voile, and batiste. Using a slub yarn in the filling direction creates shantung. If some warp yarns are held at a tighter tension than others, the result is seersucker. A plain-weave fabric made with yarns that have high amounts of twist will produce crepe fabrics. Modifications of the plain weave are:



Rib Weave

Yarns in one direction appear to be heavier, bulkier, or thicker than in the other direction. Examples of rib-weave fabrics are dimity, poplin, faille, and grosgrain.

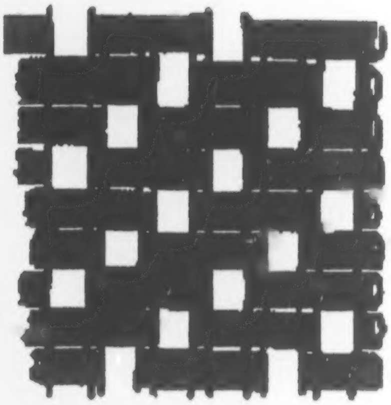


Basket Weave

Two or more warp yarns are interlaced as a unit with one or more filling yarns. This weave produces a fabric that is both less firm and weaker than the regular plain weave or the rib weave. Oxford cloth, monk's cloth, and hopsacking are examples of basket-weave variations. Wool basket-weave fabrics are used as suit and coat fabrics.

Basket-weave fabrics are flexible and more resistant to wrinkles because of their loose, open weave. However, some garments made from these fabrics may snag easily, pill readily, and stretch at points of body strain.

WEAVING PATTERNS - PAGE 2

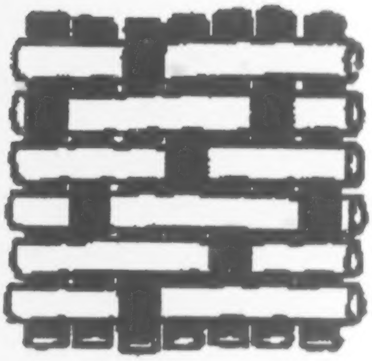


Twill Weave

A twill weave can be identified by diagonal ridges on the face of the fabric. Frequently these diagonals are also visible on the back of the fabric. The ridges may have a steep, regular, or reclining degree of slope. Steep twill weaves (75 degree angle) are strong fabrics because the warp thread count (threads per inch) is high.

In general, twill weave fabrics are heavier and sturdier than plain weaves. However, care must be taken to avoid flattening the diagonal ridges when pressing or ironing these fabrics. Also, the twill weave ridges may flatten and become shiny because of pressure and rubbing during wear. Twill weaves do not show soil as readily as do smooth surfaced fabrics. The quality of a twill fabric varies with fiber content, yarn construction, and the thread count of the fabric.

There are many interesting variations of twill fabrics. Some common twill weave fabrics are denim, herringbone, gabardine, serge, and wool broadcloth.



Satin Weave

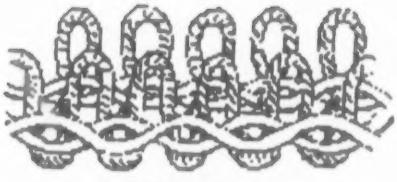
Fabrics made with the satin weave are characterized by yarns that float (pass over) across several yarns placed in the opposite or perpendicular position. If the warp yarns float over the filling yarns, the result is satin fabric. The combination of long floats of filament yarns and low-twist yarns creates the shiny surface of satin. If the filling yarns are placed to float over the warp yarns, sateen fabrics are created. Because sateen fabrics tend to be chosen for characteristics other than sheen, staple-length fiber yarns (usually cotton) are used instead of filament fiber yarns.

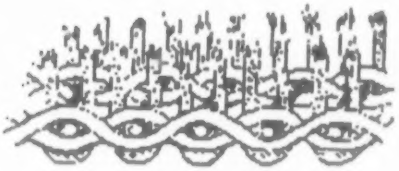
In general, satin-weave fabrics are not considered durable fabrics. The yarn floats on the surface of the fabrics tend to snag easily. The lustrous, smooth appearance is the major reason people select satin fabrics. Special care in dry cleaning and laundering are required. Examples of satin-weave fabrics include slipper satin, crepe-back satin, antique satin, bridal satin, and sateen.

WEAVING PATTERNS - PAGE 3

Pile Weave

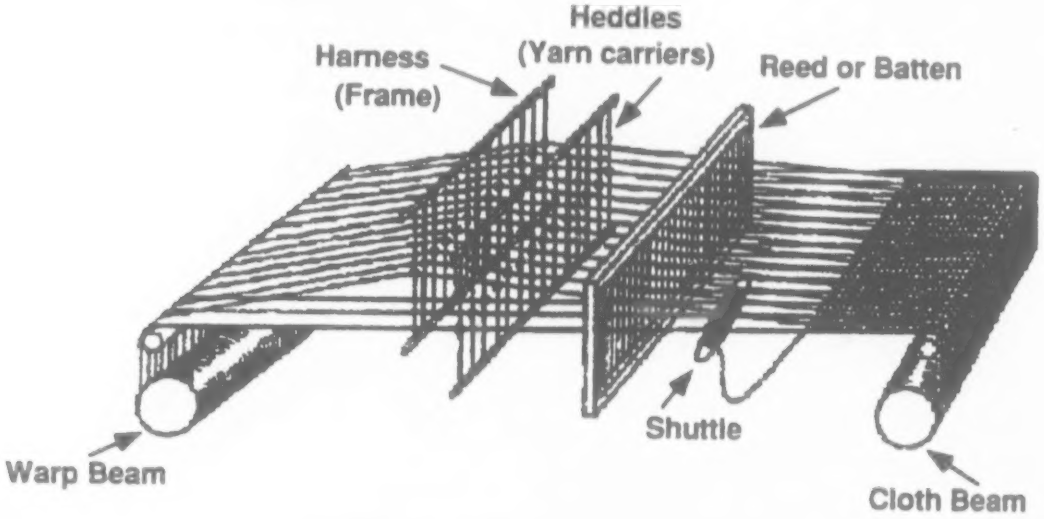
Pile fabrics, such as velveteen, velvet, and corduroy, are woven with three sets of yarns. The extra warp yarns are cut as they pass over a filling yarn to produce the pile surface. If the third set of yarns is left as uncut loops, terry cloth or bath toweling is created. The back or base of a pile fabric may be a plain, twill, or satin weave. Durability of the fabric depends on the base weave construction. For example, a twill weave back provides greater durability than a plain weave back. A dense pile surface produces a pile fabric with greater crush resistance. A less dense pile fabric will flatten when worn and will reflect light differently—parts of the garment will look lighter in color. To eliminate this problem, a crush-resistant finish can be applied.


LOOP PILE


CUT PILE

Corduroy and terry cloth are usually made from cotton or a blend of cotton and polyester. Velveteen is construction from fine cotton yarns. Velvets are woven of yarns made of acetate, rayon, nylon, or silk.

Source: Cooperative Extension Service, University of Illinois at Urbana-Champaign, College of Agriculture



THE HUMAN LOOM

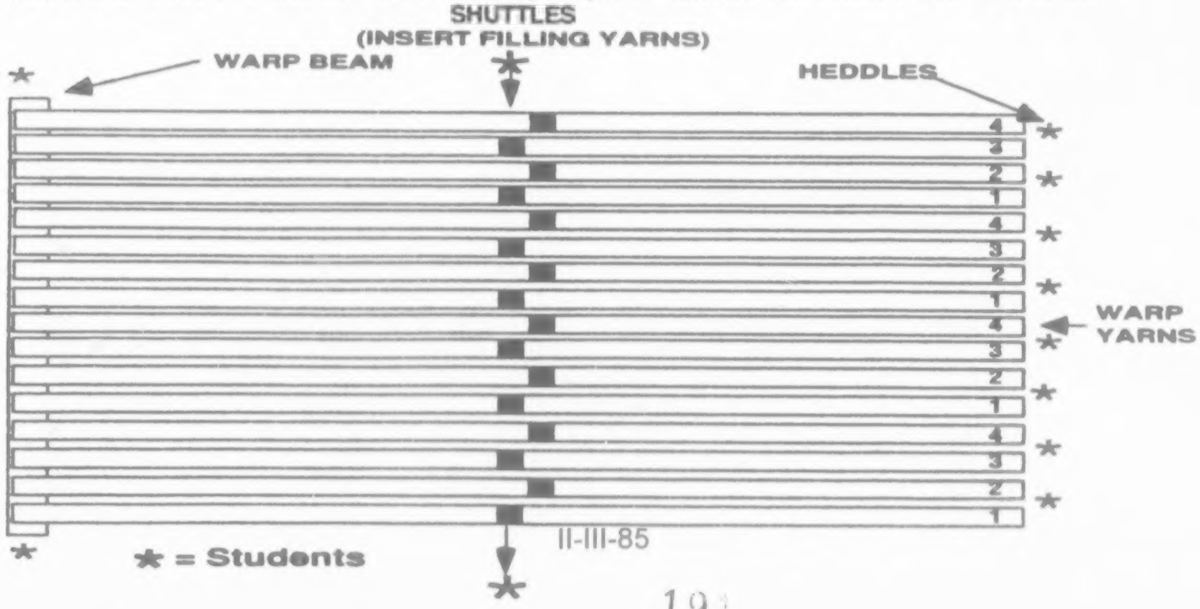
Make a human loom with the students being the loom warp beam, heddles, and shuttles. Use two colors of crepe paper strips, fabric strips, or wide ribbon for the warp and the filling (weft).

1. Begin by attaching the long strips (10 to 12 feet) of warp to a large round shipping tube, which becomes the warp beam of the loom. Attach strips in multiples of four, using at least twelve. (Sixteen is better if you have big enough tube.) Two students will hold it during the weaving activity. At the other end, place a student for each two (2) warp yarns (one for each hand). Number the warp yarns with stickers or tape, numbering them 1, 2, 3, 4, 1, 2, 3, 4, etc. The numbers actually identify the heddle number.

2. Meanwhile, have about 50 to 60 filling yarns cut about two feet wider than the shipping tube. Have some students hold the filling yarns and some students be the shuttles, placing the filling yarns between the warp yarns as the heddles are rotated. It will only take about eight (8) filling yarns or so to see a weaving pattern. Be sure to start weaving adjacent to the warp beam.

3. The instructor will probably need to call out the weaving patterns as the activity progresses. For example, for a plain weave, the 1s and 3s are up and the 2s and 4s are down for one filling thread to be put in. Then the 1s and 3s are down and the 2s and 4s are up, etc. All weaving patterns are based on multiples of four, so it isn't too difficult. At some point (when the loom is full), the filling yarns can be pulled out and new weaving patterns completed.

A brief diagram of this is shown below. Although this activity takes quite a bit of floor space, it is really fun and the students truly begin to comprehend how fabric is woven.



Name ______________________________ Period __________ Date ______________

WEAVING GRIDS

	1	2	3	4	5	6	7	8
A								
B								
C								
D								
E								
F								
G								
H								

Weave ________________

	1	2	3	4	5	6	7	8
A								
B								
C								
D								
E								
F								
G								
H								

Weave ________________

	1	2	3	4	5	6	7	8
A								
B								
C								
D								
E								
F								
G								
H								

Weave ________________

	1	2	3	4	5	6	7	8
A								
B								
C								
D								
E								
F								
G								
H								

Weave ________________

KNIT FABRICS

KNITS

Knitted fabrics have been popular for many years, They were especially popular during the 1960s and the early 1970s. Use of knit fabrics for clothing decreased in the late 1970s, but there is evidence that they are regaining popularity. Fiber manufacturers contributed to the growth of the knit industry through research and development of new fibers and new yarns. Technologists successfully created computerized equipment and new knit structures. Other reasons for the increased popularity of knitted fabrics include their ability to resist wrinkling, their greater use by fashion designers, and the fact that knit fabrics can be made rapidly and therefore cost less to produce.

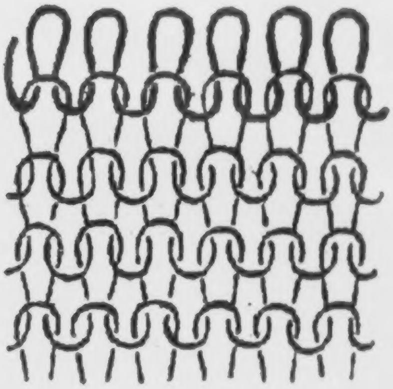
Remember that knitting machines form loops of yarn with many pointed needles or shafts. The needles draw new loops through the previous loops. The vertical rows of loops are called **ribs** or **wales,** and the horizontal rows of loops are called **courses**.

Knits made with more wales per inch will be more stable and rigid in the horizontal direction and will tend to shrink less in that direction. If there are more courses per inch, the knit fabric will be more stable and will shrink less in the lengthwise direction.

A loose knit construction with fewer wale and course yarns per inch will tend to stretch, sag, and bag easily. Use of more wale and course yarns per inch creates a knit that has good recovery from stretch.

The two basic methods of constructing knits are weft (or filling) knits and warp knits. Each method produces a variety of types of knit fabrics.

Weft (or Filling) Knits



Weft or filling knits are constructed from one yarn that is fed into knitting machine needles in a horizontal direction. Either a circular or a flat-bed knitting machine can be used to make weft knits. The circular knitting machine creates a spiral effect as it produces a fabric in tubular form. Because of this spiral characteristic, it is often difficult to have the wales and courses of the knit fabric form a perfect 90 degree angle match. This difficulty may produce an "off-grain" effect in some fabrics, particularly where stripes or other geometric fabric designs are involved.

Four basic stitches are used in manufacturing weft or filling knits. They are the flat or jersey stitch (also sometimes called a plain knit), the purl stitch, the rib stitch, and the interlock stitch, which is also used in double knits.

KNIT FABRICS - PAGE 2

Flat or jersey knit fabrics have visible flat vertical lines on the front and dominant horizontal ribs on the back of the fabric. The flat or jersey knit stitch is used frequently because it is fast, inexpensive, and can be varied to produce fancy patterned fabrics. A major disadvantage of regular flat knits is their tendency to "run" if a yarn is broken. However, a variation of the stitch will create run-resistant flat knits. The flat or jersey stitch can be varied by using different yarns or double-looped stitches of different lengths to make terry, velour, and plus fabrics. This stitch is also used in making nylon hosiery, men's underwear, and T-shirts.

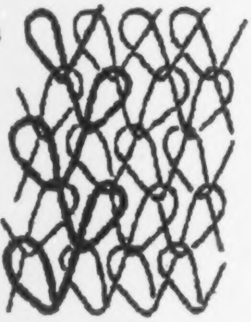
Purl knit fabrics look the same on both sides of the fabric. Many attractive patterns and designs can be created with the purl stitch. It is often used in the manufacture of bulky sweaters and for some children's clothing. A major disadvantage of this method is that production is slow.

Rib stitch knits have stitches drawn to both sides of the fabric, which produces columns of wales on both the front and back of the fabric. Rib stitch produces fabrics that have excellent elasticity. Rib knits are used for the "ribbing" which is usually found at the lower edges of sweaters, on sleeve cuffs, and at necklines. They are also used for a variety of different kinds of garments.

Interlock stitch knits are variations of rib stitch knits. The front and back of interlocks are the same. These fabrics are usually heavier and thicker than regular rib knit fabrics. However, fine yarns can be used to produce lightweight interlock knits. The interlocking of stitches prevents runs and produces apparel fabrics that do not ravel or curl at the edges.

Double knits are made from the interlock stitch and variations of that stitch. The process involves the use of two pairs of needles set at an angle to each other. A variety of attachments can be added to the knitting machine to create beautiful patterns. The development of highly sophisticated electronic controls and the use of computers in design make it possible to reproduce intricate art work or other detailed designs in minutes. The front and back surfaces of the double knits have a rib-like appearance. These fabrics are generally firm, less apt to stretch, more resilient, and heavier than single knits. They are also run resistant and do not ravel. Two fibers that are often used to make double knits are polyester and wool.

Warp Knits



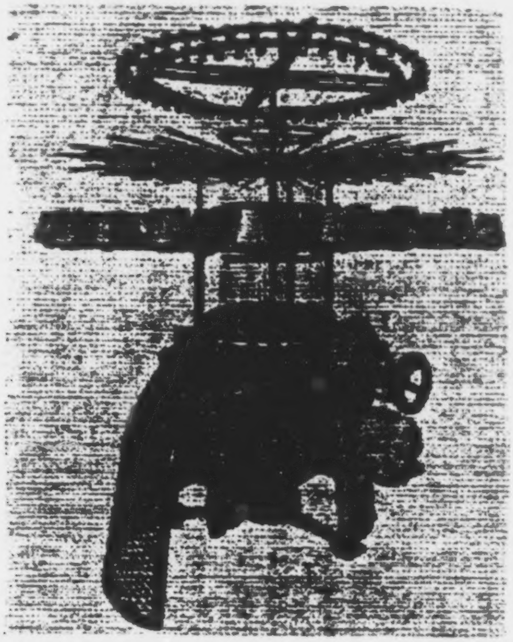
Warp knit fabrics are constructed with yarn loops formed in a vertical or warp direction. All the yarns used for a width of a warp knit are placed parallel to each other in a manner similar to the placement of yarns in weaving. These fabrics can be made rapidly and in great quantity. Two common types of warp knits are tricot and raschel.

KNIT FABRICS - PAGE 3

Tricot knits are made almost exclusively from filament yarns because uniform diameter and high quality are essential yarn characteristics for use with the very high speed tricot knitting machines. Fabrics constructed by the tricot knitting machine are usually plain or have a simple geometric design. The front surface of the fabric has clearly defined vertical wales, and the back surface has crosswise courses.

General characteristics of tricot knits include softness, good drapability, crease resistance, non-raveling, and elasticity. The wide range of textile products made from tricot knits include lingerie, sleepwear, robes, men's shirts, blouses, dresses, waitresses' and nurses' uniforms, backing for bonded fabrics, and automobile upholstery. Tricot knits are made predominantly from nylon, acetate, and polyester fibers.

Raschel knits are produced from spun or filament yarns of different weights and types. Most raschel knits can be identified by their intricate designs, the open-space look of crochet or lace, and an almost three-dimensional surface effect design. Raschel knits are used for a diverse group of products, including lace and lace trims, sweaters, thermal underwear, swimsuits, blankets, and tennis nets.



Circular knitting frame for fillling knits.
Circa 1940s.

NON-WOVEN OR NON-KNITTED FABRICS - PAGE 1

There are numerous methods of making fabrics other than weaving and knitting, but they are not often used for apparel fabrics. Some of the reasons other fabrics are not in common use for apparel are that they are expensive to produce, the durability of the fabric limits its use, or the fabric produced is intended only for specialty use.

Felt and non-woven fabrics are examples of fabric constructed directly from fiber and without the use of yarns, looms, or knitting machines.

Felt

To manufacture felt, it is necessary to use fibers that will interlock and shrink when heat, moisture, and pressure are applied to form a solid fabric mass. Wool, hair, and fur fibers have the natural characteristics necessary to respond to these actions of the felting process. Felt is also made by combining rayon or other manufactured fibers with wool. However, to produce acceptable felt, at least 50 percent of the fiber content must be wool or hair fibers. There are also felt-like materials on the market that are made from fibers other than wool, particularly synthetics, that are produced by the needle-punch method rather than the felting process.

Felts can be made in a variety of thicknesses, are easy to shape, will not ravel, have good shock and sound absorbency, and can be treated with many finishes. Some disadvantages of felt are that it has little or no ability to recover if the fabric is stretched out of shape. Its fibers will pull apart if the fabric receives too much stress, and holes cannot be mended satisfactorily.

The diverse uses of felt range from hats and other wearing apparel to pool table surfaces and industrial purposes. Care procedures for felt are similar to those recommended for other wool fabrics. Because felt is made directly from fibers rather than from yarns, lightweight felts should be handled carefully without twisting or strenuous pulling in the care process.

NON-WOVEN OR KNITTED METHODS

The first non-woven fabrics from manufactured fibers were produced in 1942. Since that time, major developments in manufactured fibers and manufacturing equipment have increased the variety of non-wovens and the ways in which they are used. All non-woven fabrics are made directly from fibers. How the fibers are formed into the fabrics determines the type of non-woven fabric produced. Some non-woven fabrics are intended to be disposable, but others are used for durable products.

The **bonded web method** is used to produce disposable products such as hospital and hair salon garments, diapers, bed sheets, tablecloths, and cleaning wipes.

The **fusible non-woven method** is used to produce interfacings and for fusing two layers of fabric in apparel manufacture.

NON-WOVEN OR NON-KNITTED FABRICS - PAGE 2

The **spunbonded method** is used to produce interfacing for apparel, disposable protective clothing, shoe linings, backing for wall paper and carpet, and road construction.

A very complex process is used to manufacture a special group of non-wovens—synthetic suedes and leathers. The most intricate adaptation of this process is used to produce the ultra-high-fashion, suede-like fabrics, such as Ultrasuede, Amara, and Lamous.

There has been a continued growth in use of non-woven fabrics, and many experts predict that growth will increase for some time. The use of non-wovens for small items, such as diapers, ribbons, and bandages, has virtually eliminated use of traditional materials for these items. However, the newest field and the greatest growth areas for the non-wovens are in industrial and civil engineering applications. The geotextiles are made from one type of olefin—polypropylene. The grid construction of geotextile material, its strength, and its resistance to chemicals and to all weather conditions make it ideal for use in many types of construction. The mesh size of these rugged but flexible textiles varies greatly, depending on the projects in which they are used. Geotextiles are used for reinforcement in railroad beds, highways and streets, building foundations, and landscape projects. You may have seen orange geotextiles used to fence off construction sites.

If a non-woven fabric has been produced for a one-time use and is disposable; care information is not important. However, if the non-woven fabric is intended for durable use, follow the manufacturer's recommendation for care procedures. Acceptable performance of non-woven interfacings for apparel will be more successfully achieved if they are compatible with the outer garment fabric.

Name ______________________ Period ________ Date ______________

FABRIC EXPLORATION #1

Objective: To distinguish differences in pile weave constructions.

Supplies needed:
- Two 3-inch by 3-inch swatches from the same piece of corduroy
- One 3-inch by 3-inch swatch of velvet or terry cloth

Student Procedures: Draw a vertical line on the back of each swatch to indicate warp direction. Write a "T" (for top) at the top of each swatch on the pile side of the swatches. Perform the following tests and record your findings.

Place the two corduroy swatches side by side with the "T" markings at the top. Now turn one corduroy swatch so the "T" marking is at the bottom. Describe any changes you notice in the appearance of the two swatches.

____

____

Use a pin to help unravel a warp yarn and a filling yarn from the corduroy and the velvet swatch.

Which yarns (filling or warp) form the pile?

Corduroy: ______________________________________

Velvet: ______________________________________

Which yarns hold the pile?

Corduroy: ______________________________________

Velvet: ______________________________________

What kind of weave was used to construct the back of each swatch?

Corduroy: ______________________________________

Velvet: ______________________________________

Name ______________________________ Period ______ Date ______________

FABRIC EXPLORATION #2

Objective: To test the abrasion resistance of fabrics.

Supplies needed:

- 3-inch by 3-inch acrylic swatch or an old Orlon acrylic sock
- 3-inch by 3-inch wool swatch or an old wool sock
- 3-inch by 3-inch light to medium weight 65 percent polyester/35 percent cotton blend swatch or shirt-tail area of an old shirt made of this blend
- Fine sand paper or an emery board

Student Procedures: Place one of the fabric swatches on a flat surface. Hold it down with the thumb and the first two fingers of one hand by placing the thumb at the bottom and the fingers at the top. Hold the sandpaper or nail file in the other hand and rub the center area of the fabric sample for approximately four (4) minutes. Repeat the procedure with each fabric sample. Attach the samples in the space provided on the left side of this page and record your experiment results.

Which of the fabrics showed the most damage from the abrasion or is the least resistant?

_____ Acrylic _____Wool _____Polyester/Cotton Blend

Which of the fabrics showed the least damage from the abrasion or is the most resistant?

_____ Acrylic _____Wool _____Polyester/Cotton Blend

Which sock would be the most durable?

_____ Acrylic _____Wool

Which shirt would be the most durable?

_____ Acrylic _____Wool _____Polyester/Cotton Blend

Name ______________________________ Period _______ Date _______________

FABRIC EXPLORATION #3

Objective: To test for the tendency of fabrics to "pill."

Supplies needed:
- 3-inch by 3-inch acrylic knit swatch (could be from old acrylic sweater/socks)
- 3-inch by 3-inch polyester T-shirt or polyester sweater-weight knit
- 3-inch by 3-inch wool knit swatch (could be from an old wool sweater)
- Brush with nylon bristles, such as a hair brush or shoe brush

Student Procedures: Place one of the fabric swatches on a flat surface. Hold the fabric taut by spreading the thumb and fingers of one hand to hold the fabric in place. With the brush in your other hand, brush the surface of the fabric for three to four minutes. Then rub over the brushed area with a piece of the same fabric for several minutes. Repeat this procedure with the other fabric samples. Record your results below and attach your fabric swatches to the left side of this page.

On which fabric(s) did "pills" form?

_____ Acrylic _____Wool _____Polyester

Which fabric pilled the worst?

_____ Acrylic _____Wool _____Polyester/Cotton Blend

Which fabric pilled the least?

_____ Acrylic _____Wool _____Polyester/Cotton Blend

Which fabric would be the best for a garment to be worn in an abrasive environment?

_____ Acrylic _____Wool _____Polyester/Cotton Blend

Name ______________________________ Period _______ Date _____________

FABRIC CONSTRUCTION SAMPLES

PLAIN WEAVE	BASKET WEAVE
TWILL WEAVE	SATIN WEAVE
PILE WEAVE	PATTERN OR DESIGN WEAVE
SINGLE KNIT	DOUBLE KNIT
RIB KNIT	INTERLOCK
FELTING	FUSIBLE NON-WOVEN
LACE	OTHER _____________

ADDING COLOR TO THE FABRIC

After fabrics are constructed, most of them are processed through a number of steps to produce the appearance and performance desired for apparel use. Researchers have developed many dyes and many methods of applying the colors and designs to fabrics. In addition, these fabrics may have any number of finishes applied to improve their appearance, strength, hand (feel to touch), resistance to wear, and ease of care.

Dyes and Dyeing

Without dyes, all garments would be gray, brown, or off-white. Most of today's consumers would consider these very dull and uninteresting choices. The dazzling array of bright, muted, and pastel colors in plain, print, stripe, check, and plaid fabrics are possible because of the thousands of dyes currently available.

For many centuries the only dyes available were made from natural chemical materials—from vegetables and animals. These materials worked relatively well with natural fibers but often varied in quality and gave unpredictable results. Today, almost all dyes are made from synthetic chemical compounds and are superior in almost every way to natural chemical dyes.

Some sources of natural dyes in ancient days were:

Vegetable dyes:	Name	Source	Color
	Sassafras	Bark of tree	Yellow
	Indigo	Plant grown in tropical climates	Blue
	Logwood	Tropical tree	Black

Animal dyes:	Name	Source	Color
	Shellfish	Bodies	Purples
	Kermes	Oriental louse	Crimson
	Cochineal	Insect that lives on cactus plants	Red

Some sources of natural dyes today are:

Vegetable dyes:	Name	Source	Color
	Sassafras	Sassafras tea or tree bark	Yellowish tan
	Flesh	Dry yellow onion skin	Pale tan
	Redviolet	Dry red onion skin	Reddish purple
	Mustard	Mustard plant	Bright yellow
	Berry	Beet or berry juice	Reds
	Blueviolet	Blueberries	Blue-purple
	Cinnamon	Cinnamon juice	Reddish brown
	Coffee	Coffee juice	Brown

ADDING COLOR TO THE FABRIC - PAGE 2

Thousands of synthetic dyes have been developed as a consequence of modern fiber and fabric developments. New fibers or fiber modifications may require parallel development of new dyes or methods of color application. Also, consumers now demand wider choices of colors and that dyes be colorfast. The complex procedures of dyeing textiles are now aided by the use of computers. Standardization of dye solutions and dye lots has become a reality because of this technology.

Colorfastness refers to the permanence of dye in fabrics. A colorfast fabric or garment will not lose color through wear or care. Some colors and prints have good colorfastness, whereas others do not. Some dyes, such as those used for madras prints, are meant to run and fade.

The colorfastness of dyes depends on several important factors:

- Matching the fiber's chemical structure to the dye's chemical structure. Dyes that are effective for protein fibers are not effective on cellulose fibers nor are any of these dyes successful with synthetic fibers.

- Adding chemicals or substances that assist in dyeing and printing fabrics. For example, polyester does not take dye easily, so materials are added to the dye bath to help the fibers pick up the dye in a uniform manner.

- Various methods and techniques of dye application. Many methods are used to "fix" colors, that is, to make them permanent.

There are also certain conditions in wear, care, and the environment that affect colorfastness and that should be considered when a manufacturer is selecting a dye for a fabric. Colorfastness of a dye to acids and alkalines is necessary if a color is to withstand perspiration, deodorants, and antiperspirants. Some dyes are not colorfast to sunlight. Fumes and ozone may cause a change in color of some dyed fabrics. Dyes must be colorfast to the products and procedures used to clean or launder a garment. And, most dyes should not crock (rub off), bleed, or run when the garment is worn or cleaned. If these conditions occur when a garment is first worn, they will continue to occur. Check labels and hangtags for information about the colorfastness of a fabric or garment.

Dyes can be applied during any state in manufacturing textile products. The type of fabric or garment will determine whether the dye is applied to the fiber, yarn, fabric, or garment.

Fiber dyeing means that the fibers are dyed before being spun into yarns. It provides evenness of dye penetration and permits the spinning of tweed and multicolored yarns. It is the most costly method for dyeing and the highest fashion risk because the color must be applied many months before the fabric is made into a garment and color demands and preferences may change in the meantime.

ADDING COLOR TO THE FABRIC - PAGE 3

Solution dyeing is possible only with manufactured fibers. Dye is added to the chemical solution before it is forced through the spinneret to form fibers. Therefore, the color is a permanent part of the fiber and very resistant to any type of fading. This method is particularly good for dyeing acetate, which tends to fume-fade easily, and for difficult-to-dye fibers, such as olefins and some types of rayon, nylon, acrylic, and polyester fibers. Unfortunately, the number of colors available with this dye method is rather limited.

Yarn dyeing means that the yarns are dyed before they are woven or knitted into fabric. This method is less costly than fiber dyeing and provides clear colors because of the excellent penetration of the dye into fibers. The major use of this method is to dye yarns used in stripes, plaids, checks, and other multicolored designs. In special cases, yarn dyeing is used for solid color fabrics.

Piece or fabric dyeing means the fabric is dyed after being woven or knitted. It is less costly than either fiber or yarn dyeing and is the most adaptable method for dyeing solid-color fabrics. There is less fashion risk with this method because the color is applied later in the production process and therefore closer to the time of sale. Manufacturers can store undyed fabric and dye it a specific color, according to their orders. If heavy or densely woven fabrics or highly twisted yarn fabrics are piece dyed, there can be a problem of poor dye penetration to the center of the yarns. This problem is not evident when the garment or textile product is new. It will appear after a brief period of wear, which causes the undyed yarn areas to shift to the fabric surface. For this reason most high quality heavy and densely woven solid color fabrics are yarn dyed rather than piece dyed.

Garment or product dyeing means that the fabric is cut and sewn into the finished product and then dyed. This method is successful with limited categories of non-tailored garments, such as sweater, hosiery, and pantyhose. This method has the lowest fashion risk and is relatively inexpensive. Manufacturers can offer wider color choices because they can dye the garments in the colors designated by store buyers' orders.

A number of special dye methods make it possible to dye fabrics that contain two or more fibers with different absorption rates and different levels of attraction or reaction between dyes and fibers.

Cross-dyeing is an example of a special dye method. With this method, a fabric that contains two or more fibers is dyed so that each fiber accepts a different dyestuff and results in a different color. Sometimes the dye process is planned so that certain fibers will not accept any color and will remain white. Therefore, by planning the arrangement of fibers in a fabric, such as a plaid, check, tweed, or stripe, some other design or a muted color can be created with modification of the piece dying method.

FABRIC FINISHES AND APPLIED DESIGNS

TEXTURE FINISHES

Many designs or finishes are applied to fabric surfaces by methods other than dyeing or printing. These methods generally involve the use of a chemical finish, a mechanical finish, or both. Most of these finishes are used only on woven fabrics and create a change in the texture of the surface and hand of the fabric.

Examples of these special texture finishes include:

Napping	Using rotating wire brushes to raise the short fiber ends to create a soft, fuzzy surface.
Calendaring	Passing a fabric between two heated rollers to smooth the fabric and improve the luster.
Lustering	Treating a fabric with heat and pressure to add luster.
Glazing	Applying a resin to produce a high polish or glaze on the surface of the fabric.
Delustering	Treating the fibers or fabrics with chemicals to reduce their gloss.
Beetling	Flattening cotton or linen fabrics to fill out the weave and add luster.
Sizing	Adding starches or resins to the fabric for extra body or crispness. A temporary finish.
Crisp Finish	Adding a treatment to the fabric so that it stays crisp and starched looking through wear, laundering, and dry cleaning.
Embossing	Giving fabrics a raised design on the surface with rollers engraved with the design.
Ciré	Giving a super glossy finish to fabric by applying wax or some other substance before calendaring.
Moiré	Giving a watered or wavy pattern by calendaring two layers of fabric slightly off-grain.

Source: Clothing; Weber, Jeanette; Glencoe Publishing Co., Peoria, IL; 1990; pg. 201.

FABRIC FINISHES AND APPLIED DESIGNS - PAGE 2

PERFORMANCE FINISHES

Finishes are often applied to fabric surfaces to achieve a particular performance from the fabric. The end use of the fabric is identified, and finishes are applied to meet specific needs for the product. They affect the life of the product as well how the fabric performs. These finishes may be applied to the fabric before being sewn into a garment, or they may be applied to the finished garment.

Examples of these special texture finishes include:

Durable Press/ Wash and Wear	Helps fabric resist wrinkling and require little or no ironing.
Crease Resistant/ Wrinkle Resistant	Helps fabric resist wrinkling and recover more rapidly from wrinkling caused by normal wear.
Stain/Spot/Soil Resistant	Helps fabric repel stain and/or makes it easier to remove stains.
Water Repellent	Helps fabric resist water, although eventually it will become wet. Not a permanent finish.
Waterproof	Coating fabric so that no water will penetrate the fibers. Makes the fabric non-porous.
Shrinkage-Controlled	Guarantees shrinkage should only be minimal, even after many launderings.
Antibacterial	Checks the growth of bacteria and perspiration odors.
Flame Retardant	Helps reduce flaming and burning of fabric exposed to a flame or high heat.
Mildew Resistant	Resists the growth of mildew and other molds.
Moth Resistant	Repels moths and other fiber-eating insects.
Antistatic	Helps prevent fabric from clinging and building up static electricity.
Absorbent	Makes the fabric absorb moisture more easily and thus becomes more comfortable to wear.

Source: Clothing; Weber, Jeanette; Glencoe Publishing Co., Peoria, IL; 1990; pp. 202-203.

FABRIC FINISHES AND APPLIED DESIGNS - PAGE 3

FABRIC PRINTING

Fabrics can be printed in a variety of ways. Printing involves transferring color to the surface of a fabric. Some printing methods are very old techniques that are still used by crafts people today. However, the textile industry uses high-speed electronic machines for textile printing. Some specialty fabrics, such as scarves and evening gowns, may be printed by hand.

Some of the various methods of printing fabrics that are commonly used are discussed below.

Roller Printing
The roller printing press contains circular rollers, or printing plates, for each color of the desired design. Each roller is chemically etched with its colored part of the pattern, leaving high and low areas on the rollers. The raised sections of the roller pick up the desired color. The fabric is printed as it passes through the press and makes contact with the raised sections of each roller. The different areas of color will coincide to form the completed design.

Two variations of roller printing include discharge printing and resist printing.

> In **discharge printing**, some of the dye is bleached or chemically removed to create a white design on a colored fabric.
>
> In **resist printing**, the fabric is printed using a dye-resistant chemical. Then the fabric is dyed. The printed area resists the dye and remains uncolored.

Screen Printing
A fabric or metal mesh screen is stretched on a frame. The design is traced onto the screen. Then all the areas not included in the design to be printed are blocked out with a special coating. The color is then pressed through the screen onto the fabric, using a squeegee or roller. A separate screen is used for each color of the design. Large designs, such as those often used in home furnishings fabrics, can be printed using this method.

Rotary Screen Printing
This method combines the advantages of roller printing and screen printing. The rotary screens, made from metal foil, are less costly than the printing plates. It is a faster method than flat screen printing.

Transfer Printing
This is a popular method for transferring designs, insignias, and words onto fabric. The design is printed in reverse with heat sensitive dyes on paper. When the paper pattern is placed face down on the fabric and heat is applied, the design is transferred to the fabric.

FABRIC FINISHES AND APPLIED DESIGNS - PAGE 4

Block Printing
This is a method that is similar to using a rubber stamp. A design is carved on a block. The first blocks were made from clay, but today they can also be made from wood, linoleum, or metal. The block is covered with dye and pressed on the fabric so that the design is transferred from the block to the fabric.

Painting
Painting on fabric is similar to painting on any other surface. The color can be applied with a brush, a pen, or a marker. Hand-painted silk is used for very expensive garments. Designs are also painted on T-shirts, sweatshirts, canvas bags, and umbrellas.

Batik Printing
Batik printing is created by first applying hot wax to the areas of the fabric that will not be dyed. The fabric is then dipped into a dye and left to dry. New wax can be applied to other areas before the fabric is dipped into another color. Batik fabric can have elaborate designs by applying different layers of wax and dye.

Tie Dyeing
Tie dyeing is a very old method. The fabric is tightly tied in certain places, then dipped into the dye. The dye will not penetrate in the spots where the fabric is tied. The fabric can be retied and dipped in a different color of dye.

Source: Clothing; Weber, Jeanette; Glencoe Publishing Co., Peoria, IL; 1990; pp.109-110, 198-201.

TEXTURE FINISHES TIC-TAC-TOE

Passing a fabric between two heated rollers to smooth the fabric and improve the luster.	Applying a resin to produce a high polish or glaze on the surface of the fabric.	Using rotating wire brushes to raise the short fiber ends to create a soft, fuzzy surface.
Treating a fabric with heat and pressure to add luster.	Flattening cotton or linen fabrics to fill out the weave and add luster.	Treating the fibers or fabrics with chemicals to reduce their gloss.
Giving fabrics a raised design on their surfaces with rollers engraved with the design.	Adding starches or resins to the fabric for extra body or crispness. Is a temporary finish.	Adding a treatment to the fabric so that it stays crisp and starched looking through wear, laundering, and dry cleaning.

Calendaring

Glazing

Beetling

Napping

Lustering

Delustering

Embossing

Crisp Finish

Sizing

DISCARD THIS CARD!

To print this game:
Make two copies of the terms part for each copy of the definitions part.

PERFORMANCE FINISHES TIC-TAC-TOE

Helps fabric resist wrinkling and requires little or no ironing.	Guarantees shrinkage should only be minimum, even after many launderings.	Helps fabric repel stains and/or makes it easier to remove stains.
Helps prevent fabrics from clinging and building up static electricity.	Fabrics resist water, although eventually they will become wet. Not a permanent finish.	Coating fabrics so that no water will penetrate the fibers. Makes the fabric non-porous.
Helps reduce flaming and burning in fabrics exposed to a flame or high heat.	Checks the growth of bacteria and perspiration odors.	Resists the growth of mildew and other molds. Repels moths and other fiber-eating insects.

Durable Press/ Wash & Wear

Shrinkage-Controlled

Stain/spot/soil Resistant

Antibacterial

Mildew Resistant
Moth Resistant

Waterproof

Flame Retardant

Antistatic

Water Repellent

DISCARD THIS CARD!

To print this game: Make two copies of the terms part for each copy of the definitions part.

FABRIC DYEING TIC-TAC-TOE

A technique to make colors permanent.	When dye is added to the chemical solution before it is forced through the spinneret.	When the fabric is cut and sewn into the finished product and then dyed.
When dyes rub off, bleed, or run.	When the yarns are dyed before they are woven or knitted into fabric.	An example of a special dye method.
When fibers are dyed before being spun into yarns.	When the fabric is dyed after being woven or knitted.	When the dye adheres to the fabric and does not rub, bleed, or run.

Fiber Dyeing

Solution Dyeing

Yarn Dyeing

Piece or Fabric Dyeing

Garment or Product Dyeing

Cross dyeing

Colorfastness

Crock

"Fix" Colors

Discard this card!

To print this game:
Make two copies of the terms part for each copy of the definitions part.

FABRIC PRINTING TIC-TAC-TOE

The design is printed from a press with circular rollers or printing plates.	The design is printed in reverse with heat sensitive dyes on paper and transferred with heat.	Design is created by applying hot wax to the areas that won't be dyed; then fabric dipped into dye bath.
A fabric or metal mesh screen is stretched onto a frame with all areas not included in the design blocked out.	The design is carved into a block, covered with dye, and pressed on the fabric.	The fabric is tightly tied in certain places, then dipped into the dye.
This method combines the advantages of roller printing and screen printing.	Color and/or design is applied with a brush, pen, or marker.	Some of the dye is bleached or chemically removed to create a white design on a colored fabric.

Roller Printing

Screen Printing

Rotary Screen Printing

Transfer Printing

Block Printing

Fabric Painting

Batik Printing

Tie Dyeing

Discharge Printing

DISCARD THIS CARD!

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TEXTURE FINISHES TIC-TAC-TOE

Passing a fabric between two heated rollers to smooth the fabric and improve the luster.	Applying a resin to produce a high polish or glaze on the surface of the fabric.	Using rotating wire brushes to raise the short fiber ends to create a soft, fuzzy surface.
Treating a fabric with heat and pressure to add luster.	Flattening cotton or linen fabrics to fill out the weave and add luster.	Treating the fibers or fabrics with chemicals to reduce their gloss.
Giving fabrics a raised design on their surfaces with rollers engraved with the design.	Adding starches or resins to the fabric for extra body or crispness. Is a temporary finish.	Adding a treatment to the fabric so that it stays crisp and starched looking through wear, laundering, and dry cleaning.

Calendaring

Glazing

Beetling

Napping

Lustering

Delustering

Embossing

Crisp Finish

Sizing

DISCARD THIS CARD!

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PERFORMANCE FINISHES TIC-TAC-TOE

Helps fabric resist wrinkling and requires little or no ironing.	Guarantees shrinkage should only be minimum, even after many launderings.	Helps fabric repel stains and/or makes it easier to remove stains.
Helps prevent fabrics from clinging and building up static electricity.	Fabrics resist water, although eventually they will become wet. Not a permanent finish.	Coating fabrics so that no water will penetrate the fibers. Makes the fabric non-porous.
Helps reduce flaming and burning in fabrics exposed to a flame or high heat.	Checks the growth of bacteria and perspiration odors.	Resists the growth of mildew and other molds. Repels moths and other fiber-eating insects.

Durable Press/ Wash & Wear

Shrinkage-Controlled

Stain/spot/soil Resistant

Antibacterial

Mildew Resistant
Moth Resistant

Waterproof

Flame Retardant

Antistatic

Water Repellent

DISCARD THIS CARD!

To print this game:
Make two copies of the terms part for each copy of the definitions part.

FABRIC DYEING TIC-TAC-TOE

A technique to make colors permanent.	When dye is added to the chemical solution before it is forced through the spinneret.	When the fabric is cut and sewn into the finished product and then dyed.
When dyes rub off, bleed, or run.	When the yarns are dyed before they are woven or knitted into fabric.	An example of a special dye method.
When fibers are dyed before being spun into yarns.	When the fabric is dyed after being woven or knitted.	When the dye adheres to the fabric and does not rub, bleed, or run.

Fiber Dyeing

Solution Dyeing

Yarn Dyeing

Piece or Fabric Dyeing

Garment or Product Dyeing

Cross dyeing

Colorfastness

Crock

"Fix" Colors

Discard this card!

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FABRIC PRINTING TIC-TAC-TOE

The design is printed from a press with circular rollers or printing plates.	The design is printed in reverse with heat sensitive dyes on paper and transferred with heat.	Design is created by applying hot wax to the areas that won't be dyed; then fabric dipped into dye bath.
A fabric or metal mesh screen is stretched onto a frame with all areas not included in the design blocked out.	The design is carved into a block, covered with dye, and pressed on the fabric.	The fabric is tightly tied in certain places, then dipped into the dye.
This method combines the advantages of roller printing and screen printing.	Color and/or design is applied with a brush, pen, or marker.	Some of the dye is bleached or chemically removed to create a white design on a colored fabric.

Roller Printing

Screen Printing

Rotary Screen Printing

Transfer Printing

Block Printing

Fabric Painting

Batik Printing

Tie Dyeing

Discharge Printing

DISCARD THIS CARD!

To print this game: Make two copies of the terms part for each copy of the definitions part.

Name ______________________________ Period _______ Date ____________

FABRIC SCAVENGER HUNT

Directions: Find 2-inch square swatches of the fabrics listed below. You may use swatches from the classroom, home, or store. Mount and label each fabric sample on a Fabric Information Card and fill out all of the information requested for each fiber and fabric sample. Also, mount the construction samples on the same cards and complete all the information that applies.

CONSTRUCTION SAMPLES:

1. Plain weave
2. Double weave
3. Satin weave
4. Twill weave
5. Novelty weave
6. Jacquard weave
7. Single knit
8. Interlock or double knit
9. Novelty knit
10. Felted

FIBER SAMPLES:

1. Acetate
2. Acrylic
3. Cotton
4. Linen
5. Nylon
6. Polyester
7. Rayon
8. Silk
9. Wool
10. Other ____________

FABRIC SAMPLES:

1. Broadcloth or percale
2. Challis
3. Chambray
4. Chamois
5. Cordura
6. Corduroy
7. Crepe
8. Denim
9. Eyelet
10. Flannel
11. Gabardine
12. Georgette or organdy
13. Gingham
14. Lace
15. Muslin
16. Oxford cloth
17. Polar fleece
18. Poplin
19. Satin or sateen
20. Seersucker
21. Taffeta
22. Terry cloth
23. Tricot
24. Velvet or velveteen
25. Velour
26. Vinyl
27. Other __________________
28. Other __________________

If you find a piece of fabric that you feel is unusual or of interest to the class, you may substitute up to two (2) fabrics.

Continue with the activity on the following page.

FABRIC SCAVENGER HUNT - PAGE 2

TEXTILE TERMINOLOGY

Directions: Using current catalogs or advertisements describing clothing, cut out descriptions using the following textile terms and mount them next to the term.

1. Acetate
2. Broadcloth
3. Canvas
4. Chambray
5. Chintz
6. Combed cotton
7. Corduroy
8. Cotton mesh
9. 14 oz. Denim
10. French terry
11. Gabardine
12. Gore-tex
13. Interlock knit
14. Jersey knit
15. Madras cloth
16. Oxford cloth
17. Poplin
18. Rag wool
19. Spandex
20. Suplex
21. 180 thread count
22. Worsted wool

If you find a textile term that you feel is unusual or of interest to the class, you may substitute up to two (2) terms.

FABRIC INFORMATION CARDS

FABRIC NAME ______________________
FIBER CONTENT ______________________
NATURAL OR MANUFACTURED ______________
FIBER ORIGIN ______________________
BURNING TEST ______________________
TYPE OF CONSTRUCTION ______________
ADVANTAGES ______________________
DISADVANTAGES ______________________
CARE REQUIRED ______________________
SPECIAL SEWING INSTRUCTIONS
____
YOUR NAME ____________________

FABRIC NAME ______________________
FIBER CONTENT ______________________
NATURAL OR MANUFACTURED ______________
FIBER ORIGIN ______________________
BURNING TEST ______________________
TYPE OF CONSTRUCTION ______________
ADVANTAGES ______________________
DISADVANTAGES ______________________
CARE REQUIRED ______________________
SPECIAL SEWING INSTRUCTIONS
____
YOUR NAME ____________________

Name ______________________________ Period ________ Date ______________

FABRIC IDENTIFICATION

Directions: Complete the following information about each of the fabrics as they are passed around the room.

	Name of fabric	Fiber content	Method of construction	Finishes
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				

Name ______________________ Period _______ Date ____________

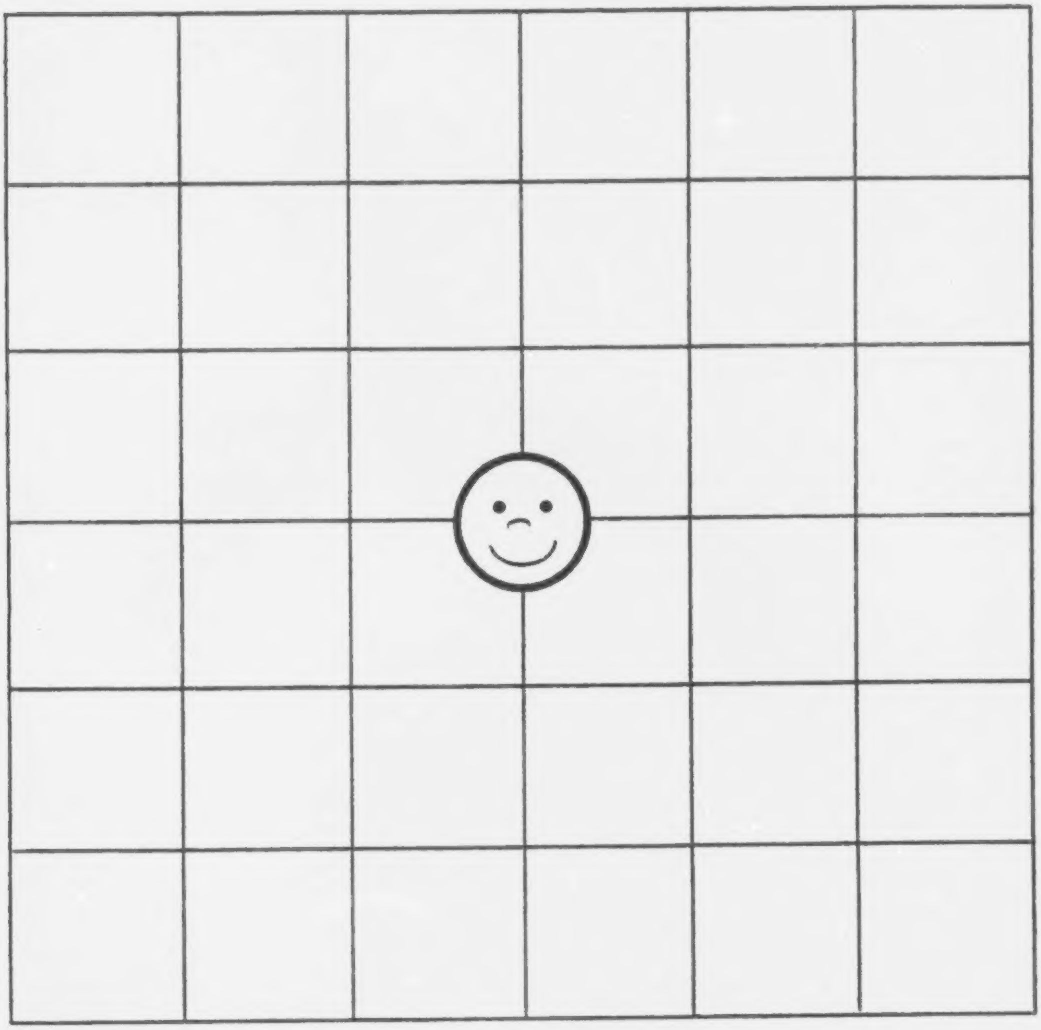
FABRIC IDENTIFICATION - PAGE 2

Directions: Complete the following information about each of the fabrics as they are passed around the room.

	Name of fabric	Fiber content	Method of construction	Finishes
26.				
27.				
28.				
29.				
30.				
31.				
32.				
33.				
34.				
35.				
36.				
37.				
38.				
39.				
40.				
41.				
42.				
43.				
44.				
45.				
46.				
47.				
48.				
49.				
50.				

Name ______________________________ Period _______ Date _____________

FIBERS AND FABRICS BINGO



FIBERS AND FABRICS BINGO TERMS

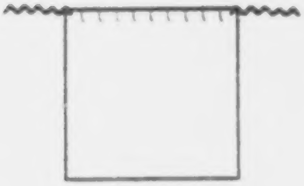
1.	FIBER	A fine hairlike substance.
2.	FABRIC	Another term for cloth.
3.	YARN	The result of twisting many fibers together.
4.	STAPLE	Fibers long enough to be measured in inches.
5.	FILAMENT	Fibers long enough to be measured in yards.
6.	BLEND	A combination of fibers to get the best characteristics of each.
7.	NATURAL	Fibers of plant or animal origin.
8.	SYNTHETIC	Fibers made by man from chemicals.
9.	SPINNERET	A device through which chemical solutions are forced to make fibers.
10.	GENERIC	A family of fibers that share a particular set of characteristics.
11.	TRADEMARK	The name given to a fiber by a manufacturer.
12.	WARP	The lengthwise yarns on a loom.
13.	FILLING	The crosswise yarns on a loom.
14.	WOVEN	A type of fabric construction which interlaces two or more sets of yarns at right angles.
15.	KNIT	Interlocking loops of yarn to make fabric.
16.	NON-WOVEN	A type of fabric made by applying heat, moisture, and agitation.
17.	PLAIN	The weave where each filling yarn passes over and under one warp yarn.
18.	TWILL	A weave with a diagonal rib.
19.	SATIN	The weave in which each warp yarn passes over four filling yarns.
20.	GRAY CLOTH	Fabric as it comes from the loom, before color is added.
21.	STOCK DYEING	Masses of fibers, such as wool or cotton, are placed in dye bath.
22.	SOLUTION DYEING	Used on synthetic fibers—dye added to solution before spinning.
23.	YARN-DYED	When the fiber is spun into yarn and then dyed.
24.	PIECE-DYEING	Cloth is dyed after it is woven.
25.	DIRECT PRINTING	Prints dyestuff directly onto fabric.
26.	RESIST PRINTING	Blocking off certain areas before applying dye.
27.	EMBOSSING	Using special patterned rolls in the calendar.
28.	BLOCK PRINT	A design is carved into a block, inked, and printed.
29.	MOIRÉ	A watered or wavy pattern created by calendaring two layers of fabric slightly off-grain.
30.	BATIK	When hot wax is applied to the areas that will not be dyed and the fabric is then dipped into the dye.
31.	ROLLER PRINT	When a roller press has a plate for each different color.
32.	SCREEN PRINT	The design is traced onto a screen and all other areas blocked out before printing.
33.	CALENDERING	When cloth passes between rollers to apply glaze, shine, or design.
34.	GLAZING	Applying a resin to produce a high polish (glaze) on fabric surface.
35.	NAPPING	Using rotating wire brushes to create a soft, fuzzy surface.
36.	SIZING	Starch is applied to fabric to give body.
37.	PERMANENT PRESS	Keeps garments smooth and wrinkle-free.
38.	ANTISTATIC	Helps prevent fabrics from clinging and building up static electricity.
39.	ABSORBENT	The fabric has the ability to absorb moisture.
40.	ANTIBACTERIAL	A finish that checks the growth of bacteria and perspiration odors.

Name ______________________________ Period _________ Date ______________

SERGER SEAM TECHNIQUES

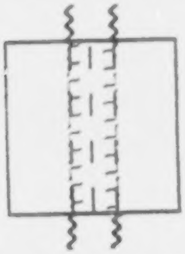
Directions: Follow the directions below and make the serger seam samples. You will need several 4-inch by 4-inch pieces of fabric to complete the assignment. Attach your samples to these pages upon completion.

1. STRAIGHT SEAM



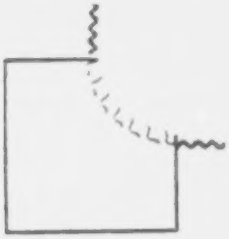
A. Place two (2) pieces of fabric right sides together.
B. Serge along one edge of the fabric.

2. PLAIN SEAM WITH OVERLOCK FINISH



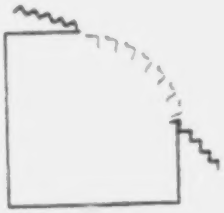
A. On a conventional sewing machine, stitch a 5/8-inch seam.
B. Then serge the edge on each side of the seam. Be careful NOT to cut the fabric while serging the seam edges.
C. Press seam open.

3. INWARD CURVE



A. Cut a 2-inch inward curve in the corner of one piece of fabric.
B. Sew around the curve, sewing slowly and applying tension with your fingers. Remember: the blade will precede the serging stitch.

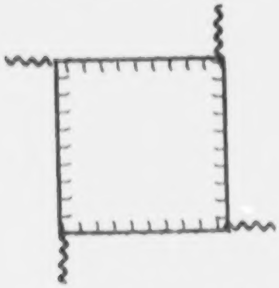
4. OUTWARD CURVE



A. Cut two (2) corners into an outward curve.
B. Sew around the curve, sewing slowly and applying tension with fingers.

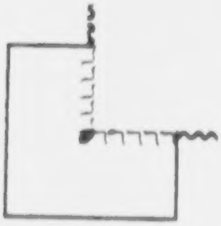
SERGER SEAM TECHNIQUES - PAGE 2

5. OUTSIDE CORNERS



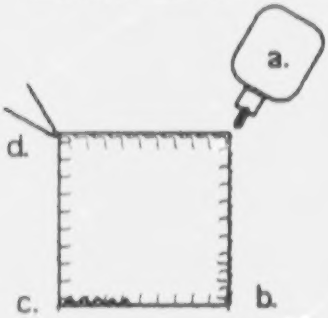
A. Stitch along one side of the fabric and off the edge.
B. Then stitch the next side, crossing (and securing) the line of stitching.
C. Continue in the same manner on the remaining sides.
D. To secure the stitching, trim the chains close to the fabric and place a drop of liquid seam sealant (such as Fray Check) on the wrong side of each corner.

6. INSIDE CORNERS



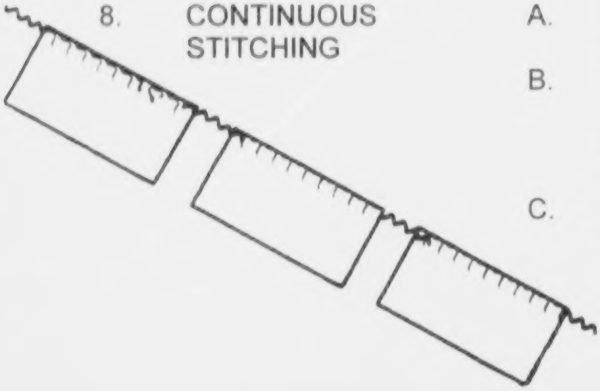
A. Cut a 2-inch corner out of one piece of fabric and clip the corner.
B. Begin stitching along one 2-inch edge toward the corner.
C. Stop at the corner when the blade reaches the other side of the corner.
D. Lift presser foot, and with needle down, swing the fabric around so the other 2-inch edge is straight in front of the needle.
E. Continue serging to the edge of the fabric.

7. SECURE SEAMS



A. Serge around all four sides of a piece of fabric.
B. Secure each of the seams using the following four methods: (Do one each.)
  a. Use liquid seam sealant (such as Fray Check).
  b. Bring the chain back and restitch at the beginning and the end of the seam.
  c. Bury the chain (pull the chain back through the serged seam using a large needle).
  d. Pull thread ends (tug on ends of threads until the threads knot).

8. CONTINUOUS STITCHING



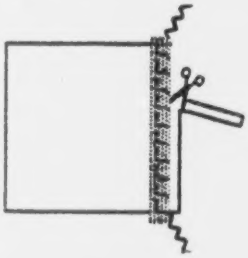
A. Fold three (3) pieces of fabric in half and press.
B. Serge from one piece of fabric to another without cutting threads or raising the presser foot but leaving some stitched chain between each piece.
C. Do NOT cut apart for this sample. This is an excellent "speed sewing" technique, sewing as many pieces as possible continuously without stopping to clip threads.

Name ______________________________ Period _________ Date _______________

MORE FUN SERGER TECHNIQUES

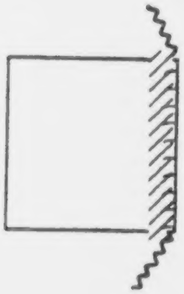
Directions: Follow the directions below and make the serger stitch samples. You will need several pieces of 6-inch by 6-inch fabric to complete the assignment. Attach your samples to these pages upon completion.

1. STABILIZE SEAM



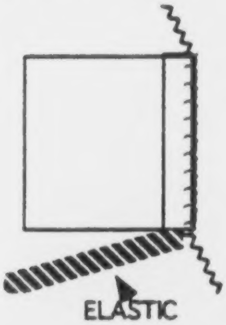
A. Use two (2) pieces of knit fabric and one (1) piece of twill tape.
B. Place knit pieces right sides together. Place the twill tape along the seamline.
C. Stitch along the seamline (which is under the twill tape) so the left needle goes on the twill tape. This technique prevents shoulder seams from stretching.

2. ELASTIC EDGE



A. Use one 3-inch piece of elastic and one (1) piece of fabric.
B. Place elastic under the presser foot of the serger. Stitch until you get hold of the elastic behind the presser foot.
C. Raise the presser foot, leave needle down, and place the fabric under the elastic. The edges of the elastic and fabric should be even.
D. Lower the presser foot.
E. Serge along the top of the elastic, pulling the elastic slightly as you sew.
DO NOT CUT THE EDGE OF THE ELASTIC AS YOU SEW.

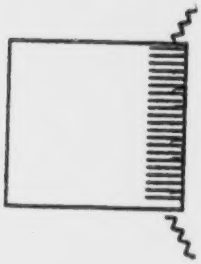
3. MOCK CASING



A. Cut a piece of elastic 4 inches long.
B. Serge elastic to edge of fabric (wrong side), stretching to fit.
C. Fold elastic and fabric down to waistline (on wrong side of fabric).
D. Turn fold back so elastic is at edge of fold, sandwiched between fabric and folded piece.
E. Serge along the folded edge.

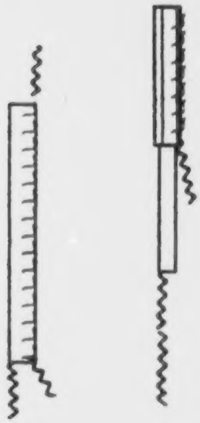
MORE FUN SERGER TECHNIQUES - PAGE 2

4. RIBBING ON KNIT



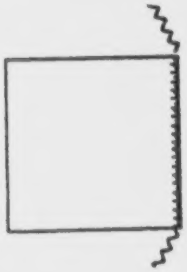
A. Use one (1) piece of ribbing about 1 inch smaller than a piece of knit fabric.
B. Place ribbing on right side of fabric, with all raw edges together.
C. Secure the ends by stitching a couple of stitches to start and holding the bottom ends with your fingers.
D. Serge along the raw edges, pulling the ribbing slightly as you stitch so it is the same size as the fabric.
E. Secure ends to keep ribbing from unstitching.

5. THIN STRAPS/ DRAW STRINGS



A. Cut a piece of soft fabric 18 inches long and 1 inch wide.
B. Make a chain of serger thread about 3 inches longer than your piece of fabric.
C. Fold fabric lengthwise with RIGHT SIDES TOGETHER. Lay the chain between the layers of fabric next to the fold and place under the presser foot. Secure in place with a couple of stitches.
D. Serge the seam along the fabric edges, being careful not to catch the chain.
E. Chain off about 3 inches at the end.
F. Hold the chain and carefully pull the right side out.

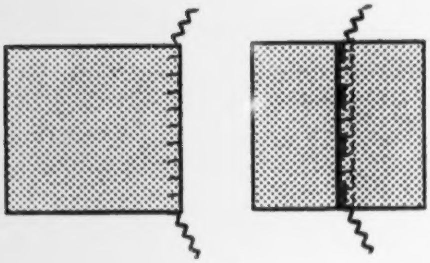
6. ROLLED HEM



A. Check the user's manual for your specific machine for the proper settings.

MORE AND MORE FUN SERGER TECHNIQUES

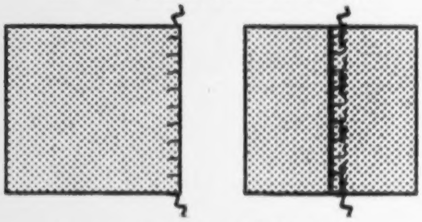
1. FLATLOCK



A. Use two (2) pieces of fabric (knits work well).
B. Adjust tensions on serger as follows:
- Right needle: Unthread (but leave needle in)
- Left needle: 0
- Top looper: 3
- Bottom looper: 9

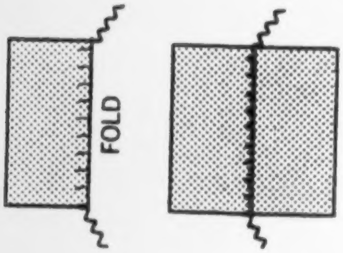
C. Sew WRONG sides together, leaving long tails.
D. Press pieces open flat. (The back will look like a ladder with horizontal lines.)
E. Secure seam to fabric by sewing a straight stitch down the center of the serging with a conventional sewing machine.

2. MOCK FLATLOCK



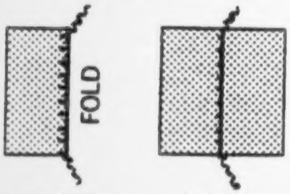
A. Place two (2) pieces of fabric WRONG sides together.
B. Serge a seam along the edge using a regular serge stitch and without adjusting the tensions.
C. Press pieces open flat.
D. Stitch the edge down with a straight stitch on a conventional sewing machine.

3. FLAT THREAD PINTUCK



A. Set the tension the same as for the FLATLOCK.
B. Remove the cutting blade so that you won't cut your fabric.
C. Fold one (1) piece of fabric so WRONG sides are together.
D. Place the fabric so that the folded edge is where the right needle would stitch if threaded.
E. Serge down the fabric, keeping the folded edge in place. Leave tails 1 inch to 2 inches long.
F. Press fabric open flat for pintuck.
This method looks nice with decorative threads.

4. SMALL PINTUCK

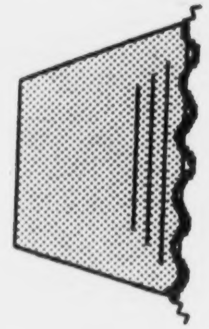


A. Unthread the left needle.
B. Set remaining tensions on 5.
C. Turn cutting blade up so that it doesn't cut.
D. Fold fabric with WRONG sides together.
E. Serge along folded edge of fabric.
F. Press seam DOWN.

Note: When making a garment and applying pintucks to a yoke, for example, serge one side from top to bottom and the other side from bottom to top, so you get a mirror image. Make sure you sew on the RIGHT side of the fabric. Always leave a tail at the ends. Secure the ends of the stitching.

MORE AND MORE FUN SERGER TECHNIQUES - PAGE 2

5. LETTUCE OR RIPPLE EDGE



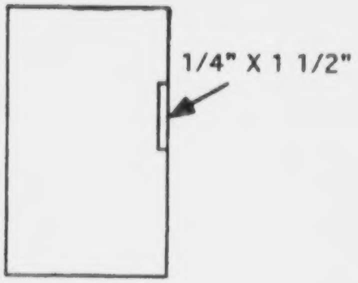
A. Unthread the left needle for a thinner finish. (A rolled hem may also be used.)

B. Cut one (1) piece of fabric at least 12 inches in length and 3 inches wide. (Lighter weight knit fabrics or woven fabrics cut on a bias make the most ripple; heavier fabrics produce less ripple.)

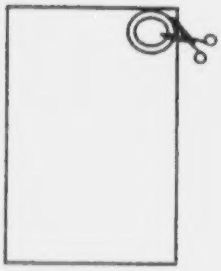
C. Place the edge of the fabric under the presser foot and stitch just enough to hold the fabric from the back.

D. Continue stitching along the edge, stretching the fabric as you stitch.
Remember, the more you pull, the more rippled the edge will be.

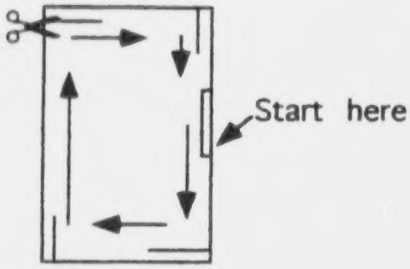
6. TIPS FOR TABLECLOTHS:



1. Always start your sewing on the lengthwise edge of the fabric, and then move to the widthwise edge. It is helpful to cut out a small piece of fabric (1/4 inch by 1 ½ inches) before you start to serge along the edge so the fabric will line up right next to the knife as you start to sew.



2. To make rounded corners, place a (round) dinner plate so that the edge of the plate touches both edges of the fabric evenly. Mark around the plate and cut. Use liquid seam sealant (such as Fray Check) at the beginning and ending of all rolled edges. Let dry; trim.



3. To make nice square corners, cut a line about 1 inch to 2 inches long and 1/4 inch wide on all corners (as shown). Start stitching in the center of one edge with the small piece cut out. Serge to the edge of the cut; raise needles; pivot; fold cut piece down and serge next side. Use liquid seam sealant on all four corners.

SERGING WITH DECORATIVE THREADS
TEACHER DEMONSTRATION

1.	WOOLY NYLON/BABY YARN	Use wooly nylon/baby yarn in both loopers, with just the LEFT needle for a wider stitch, or with just the RIGHT needle for a thinner stitch.

NOTE: When using CROCHET THREAD or BABY YARN, you must hand wind the thread evenly on an empty serger cone or into a ball and placed in a wide-mouth pint jar.

2.	PEARL COTTON/ CROCHET THREAD	Remove right needle. Pearl cotton thread may be used in top looper or both loopers. Thread the left needle with regular thread. Sew SLOWLY. Secure ends with liquid seam sealant.
3.	HEAVY RAYON THREAD	Remove right needle. Use heavy rayon thread in both loopers. Thread the left needle with regular thread. Use liquid seam sealant on ends.
4.	METALLIC	Start with normal tension settings; they may need to be adjusted down one or two numbers to get a balanced stitch. Metallic thread can be used on upper and lower loopers, or just the top looper. Thread left and right needles with regular thread.

MORE PRESSING MATTERS

Often it is pressing that makes the difference between a professional-looking garment and one that looks homemade. Even seasoned sewers may become complacent about pressing without realizing it. Whatever your skill level, up-to-date knowledge about pressing techniques and equipment will help you achieve pressing success when you sew.

THE BASICS

First, the term "pressing" means a lifting and lowering motion, gradually overlapping until the area is covered. Ironing, on the other hand, is done with a back-and-forth motion. The exception to this is in pressing seams where you may need to glide lightly in the direction of fabric grain.

Second, it is important to press as you sew during each step of garment construction. Most areas cannot be properly reached after being attached to another piece. Don't cross one seam with another until the first has been pressed. Most of the time, press on the wrong side of the fabric. A final touch-up may be done on the outside of the garment, but it is important to use a protective press cloth (that is usually wet).

Here are some further tip's:

- Keep your iron and ironing board close at hand while sewing. If space permits, work in tandem with your machine in an "L" shaped work area.
- Use your iron right from the start of your project. If fabric is wrinkled, press on the wrong side before cutting. Make sure you don't have a permanent lengthwise crease from the bolt. If steam doesn't remove it, plan your cutting layout around it. Pattern pieces that are wrinkled may be pressed flat using a low, dry setting.
- See how your fabric reacts to pressing by testing scraps. Determine proper temperature setting and compatibility with moisture. Also, check for water spotting and possible color changes. Generally, the thicker the fabric and firmer the weave, the more moisture and pressure you'll need. More delicate fibers require less heat. A napped surface will need less pressure, often none at all.

Pressing expert June Tailor explains that most animal fibers take moderate heat (use moisture for wools and dry heat for silks). Vegetable fibers, such as cotton and linen, can take moist, high heat, while synthetics need lower temperatures with moisture as required. For blends, press according to the most delicate fiber in the fabric.

MORE PRESSING MATTERS - PAGE 2

It should be noted that the settings of various irons are not standardized. A temperature range, such as "wool" or "cotton," may differ by several degrees from manufacturer to manufacturer. This is all the more reason to test scraps of your fabric. Be aware of temperature variations, too, when you are fusing interfacing.

- Make seam pressing a step-by-step process. First press both seam allowances to one side to blend the stitches, then press the seam open (unless it is serged together). To prevent impressions or ridges on the right side of the garment, use strips of brown paper under seam allowances (or index cards, long envelopes, or adding machine tape).

- Avoid pressing over pins, zippers, and buttons.

- Allow fabric to cool down after pressing. If handled while still warm and moist, the fabric may "forget" the shape you carefully pressed in or create new wrinkles.

PRESSING EQUIPMENT

Good pressing tools are essential to good results in sewing. They will actually make you more efficient, saving both time and effort. Today there are many choices. If you're new to sewing, or only sew occasionally, purchase the most basic equipment first, and acquire more gradually. Here's a rundown:

Ironing Boards

An ironing board, or similar surface, is absolutely necessary. Make sure your board is sturdy and level with a smooth, well-padded surface. June Tailor Inc., a company specializing in pressing equipment, offers a Hi-Loft Ironing Board Pad that cushions like a heavy wool blanket. As for the cover, most sewing experts now advise against the use of those shiny Teflon™ covers. A moisture absorbing cotton cover is best. A gridded design on the cover makes it an all-purpose craft surface as well. On any cover, pull the drawcords and tie them securely for a tight fit. Replace the cover when worn.

Roberta Carr of California teaches her Design Studio students how to make a large "grainboard" from ½ inch plywood covered with an old wool blanket. This is topped with a cotton gridded cover for a cutting/pressing surface.

Irons

Your choice of an iron depends on several factors--cost, space, and your particular needs. If your iron is old, think seriously about updating. It's a worthwhile investment.

MORE PRESSING MATTERS - PAGE 3

Household Irons

There are many new and useful features on today's irons—Teflon™ soleplate, self-cleaning, automatic shut-off, etc. Some familiar brands are Black & Decker, Norelco, Proctor-Silex, Sunbeam, Sanyo, Rowenta, and Sears. Bernina, a well-known name in sewing machines and equipment, offers an iron designed with homesewers in mind. Keep in mind the following points when choosing an iron:

- For consumers who sew and don't just iron, an automatic shut-off is not necessarily a benefit. Usually you want your iron to stay hot for a longer period of time, not to keep cooling down.
- Steam output is of utmost importance. Look for an iron with lots of steam holes at the front of the soleplate so that steam is concentrated near the tip where you need it most. Make sure there's a steam "burst" capability to penetrate fabric better.
- A reservoir window allows you to see the amount of water in the iron.
- Left-handed individuals may need a center-mounted or reversible cord.
- Irons that require distilled or demineralized water may not be as convenient as those that take tap water.
- Weights vary, so hold the iron in your hand to see if it will be comfortable for you to use.

Black & Decker's top-of-the-line iron, called the Advanced System Electronic, does have self-cleaning and shut-off features but a less expensive version, the Sure Steam Iron, may be an even better choice for sewers. This has adjustable amounts of steaming, plus a "burst" or surge, water reservoir, and coated soleplate. A new entry on the market is the Bernette Pro Glide Plus from Bernina, an iron designed with sewers in mind. The Rowenta line from West Germany is favored by many sewing authorities because its thick soleplate keeps the iron hot and it produces lots of steam. They offer a three-year warranty. Models include Tapmaster, Aquaglide, Powersteam, Excellence, and the new Cord or Cordless.

Professional/Commercial Irons

There are several professional/commercial irons available for home use. One is the Vapor Simac, made in Italy by Simac and distributed by Lello Appliances Corp. It has its own water reservoir and pump in a base unit. It supplies steam for hours, has a filter for tap water, and is more costly than household irons but less than gravity feed types. There's a single-function push-button model for continuous steam, and a new one that gives automatic bursts of steam as well.

If you're seriously into sewing or in business, and if you have the space, consider a pressure iron called gravity feed. This is more expensive, consisting of a tankless soleplate unit that's tethered to a hanging water tank by a water tube power cord. It has steaming power and penetration 10 to 20 times that of conventional irons, and is very durable. You'll need a ceiling hook to hang the reservoir, and the iron is heavy for pressure.

MORE PRESSING MATTERS - PAGE 4

The HiSteam/Naomoto gravity feed systems are in industrial and home use worldwide. There are several models, standard and deluxe (with electronic temperature control). This company makes excellent professional vacuum pressing boards, too.

From Sussman, the Prolite Gravity Feed Iron is user-friendly, easy to maintain, and durable. This one is lighter, weighing only 3 pounds, and the water container is smaller. Sussman also makes pressing boards for sewing like a pro.

PRESSING ACCESSORIES

To do a good job of pressing during garment construction, you'd be wise to invest in some supplementary items. The Dritz Corporation manufactures many fine products for pressing. Among their accessories: Dressmaker Ham, Seam Roll, Pressing Block and Point Turner, Needle or Velva Board, and several press cloths. They also make a hot iron cleaner called Iron-Off, which is especially good for removing melted fusible webbing from the soleplate.

Sewing expert Clotilde likes the versatility of her new catalog product called Shammy, a viscose press cloth that holds water but wrings out nearly dry. She also recommends the use of a soleplate cover called IronSafe to prevent scorching and shine of fabrics. Remember that this only fits standard size household irons.

June Tailor offers a guide to pressing techniques called Custom Detail Pressing. She also has a full line of quality pressing accessories, which are described below.

The **Sleeve Board** is a double-sided small ironing board developed to press lengthwise seams in long, slim areas such as sleeves. It's also useful for necklines, sleeve hems, buttonholes, etc. June Tailor's new version, with a steel end-bracket, provides free arm convenience.

The **Seam Roll** is a long stuffed cushion that helps avoid seam impressions on the right side of the fabric. (You may improvise by rolling up a small terry towel or covering a tightly rolled magazine with a towel and muslin.)

A **Pressing Ham** is essential for correct shaping of curved areas. There are several varieties available—a regular ham filled with either sawdust or polyurethane filler, or "silhouette" am that's contoured. They all have one side covered in cotton and one in wool blend. There's also a handy Hamholder that frees your hands as you press.

MORE PRESSING MATTERS - PAGE 5

The **Tailor Clapper** is a hardwood block used to flatten bulky areas and create hard edges and creases. The Point Press/Clapper is a combination tool. To use a block like this, put lots of steam on the area to be flattened. Remove iron and press cloth, and apply pressure with the wooden block to hold the steam.

The **All-Purpose Tailor Board** is a wooden pressing aid that has 12 different edges, surfaces, and points to accommodate every kind of facing, edge, and seam. According to Tailor, pressing on bare wood generates the most steam, but padded covers are available.

A **Cushioned Pressing Pad** is designed for pressing raised details, lace, beaded motifs, etc. The velva board is for steaming napped fabrics. A pressing mitt fits over the hand, and is helpful for reaching hard-to-get-at areas.

Pressing Cloths are essential. Because you sew on a variety of fabrics, you'll probably want several. The transparent cotton cloths are most useful for pressing on the right side, and can be used wet or dry. A bristled cloth is a steam-penetrating cloth for pile fabrics. Steam 'N Shape is excellent for wools because it holds moisture longer.

The **Needle or Velva Board** makes the pressing of pile fabrics much easier. They can be used with steam or dry irons. The pile side of the fabric always goes toward the needles, and the fabric is always pressed from the wrong side.

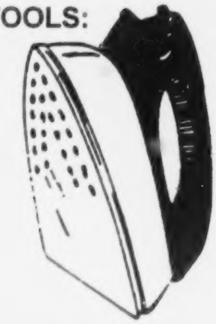
Sources for products mentioned in this article:
Bernina—3500 Thayer Court, Aurora, IL 60504-6182
Black & Decker—10 N. Park Dr., Hunt Valley, MD 21030
Clotilde—1909 S.W. First Ave., Ft. Lauderdale, FL 33315-2100, 1-800-772-2891
Dritz Corp.—P.O. Box 5028, Spartanburg, SC 29304
The Fabric-Carr (Roberta Carr)—P.O. Box 32120, San Jose, CA 95152-2120
Hi-Steam Corp.—610 Washington Ave., Carlstadt, NJ 07072
June Tailor Inc.—P.O. Box 208, Richfield, WI 53076-0208
Rowenta Inc.—281 Albany Street, Cambridge, MA 20139
Sussman-Automatic Corp.—43-20 34th St., Long Island City, NY 11101
Vapor-Simac (Lello Appliances)—355 Murray Hill Pkwy., E. Rutherford, NJ 07073
Nancy's Notions, Ltd., P. O. Box 683, Beaver Dam, WI 53916-0683, 1-800-833-0690

- Information adapted from article titled, PRESSING MATTERS, by Susan Hunt Yule, Butterick Company, Inc., 1993.

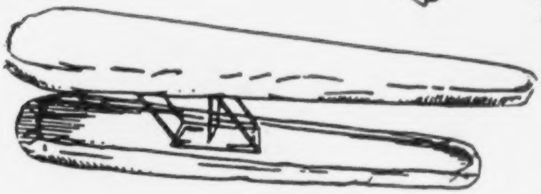
Name ____________________ Period ____ Date ____________

MORE PRESSING MATTERS

PRESSING TOOLS:



1. Name: ____________________
Uses: ____________________
Buying tips: ____________________



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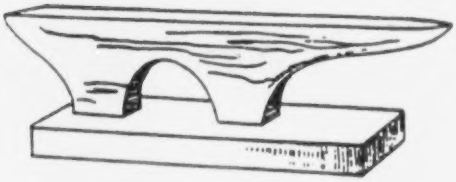

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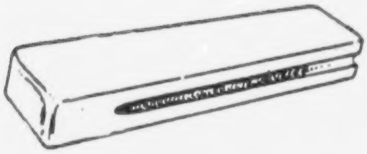

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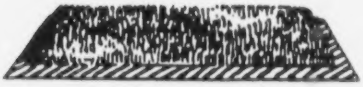

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MORE PRESSING MATTERS - PAGE 2

PRESSING TOOLS:

6. Name: ______________________________
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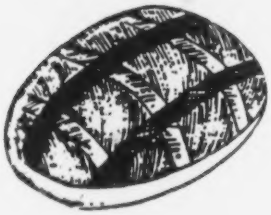

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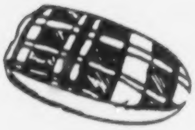

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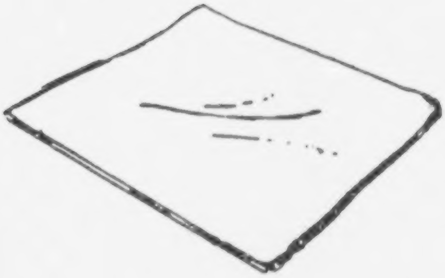

9. Name: ______________________________
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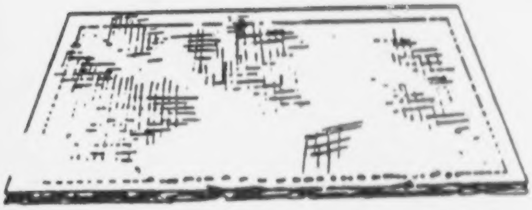

10. Name: ______________________________
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MORE PRESSING MATTERS - PAGE 3

Pressing is: ______________________________

Ironing is: ______________________________

Pressing Tips for Sewing:

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________

Seams should be pressed ______________ first.

Second, the seam should be pressed ______________.

Third, the seam should be pressed on the __________ side.

Why should the seam be allowed to cool before moving?

____

Darts should be pressed on: ______________________________

Seam allowances on pockets should be pressed over a: ______________

Corners, such as on collars and cuffs, should be pressed on: ______________

On a curved hem, extra fullness can be eased in with: ______________

To keep the hem edge from showing on the right side of the garment:

____

It is always a good idea to use a: ______________________________

Ironing Tips for Clothing:

Always iron with the ______________ of the fabric.

Iron __________ parts article first; __________ parts last.

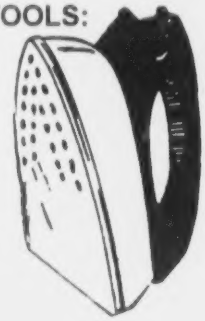
Use __________ (steam, press cloth, spray, fabric finish, etc.) for maximum effect.

Other: ______________________________

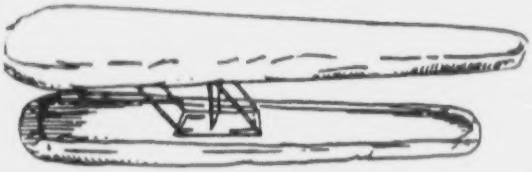
Name ______________________ Period ____ Date ______________

MORE PRESSING MATTERS

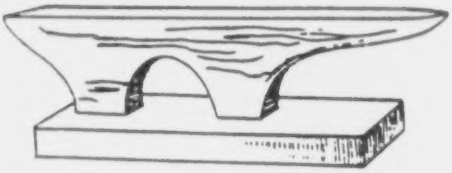
PRESSING TOOLS:



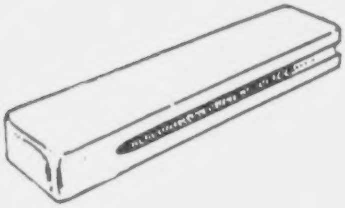
1. Name: ___Iron___________
   Uses: ______________
   Buying tips: ______________



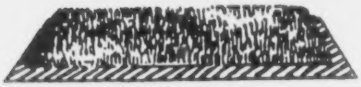
2. Name: ____Sleeve Board___________
   Uses: ______________
   Buying tips: ______________



3. Name: _____Tailor's Board and Point Presser_____
   Uses: ______________
   Buying tips: ______________



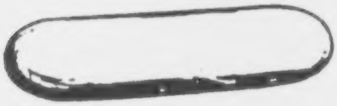
4. Name: _____Tailor's Board or Clapper___________
   Uses: ______________
   Buying tips: ______________



5. Name: _____Needle or Velva Board_____________
   Uses: ______________
   Buying tips: ______________

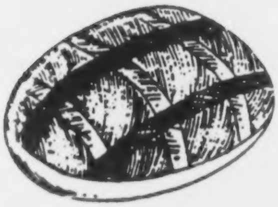
MORE PRESSING MATTERS - PAGE 2

PRESSING TOOLS:



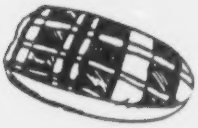
6. Name: Seam Roll
Uses:

Buying tips:



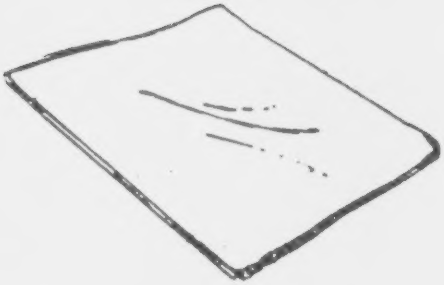
7. Name: Tailor's Ham
Uses:

Buying tips:



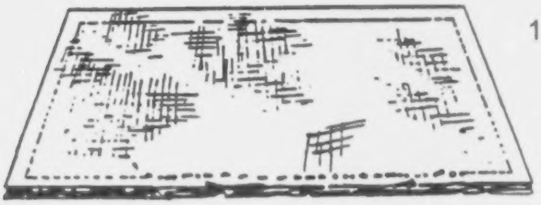
8. Name: Pressing Mitt
Uses:

Buying tips:



9. Name: Press Cloth
Uses:

Buying tips:



10. Name: Pressing Pad
Uses:

Buying tips:

MORE PRESSING MATTERS - PAGE 3

Pressing is: ___a lifting and lowering motion________________________________

Ironing is: ____a back and forth motion____________________________________

Pressing Tips for Sewing:

1. ____Press pattern pieces using a warm, dry iron.______________________
2. ____Press fabric on wrong side before laying out pattern pieces.______
3. ____Test press fabric by making a seam sample of scraps.______________
4. ____Never cross one seam with another unless the first seam is pressed open.__
5. ____Let pressed seams cool before handling or moving fabric again.____

Seams should be pressed ___flat to blend the stitches__first.

Second, the seam should be pressed ___open with paper or cloth between seam allowance and fabric.___

Third, the seam should be pressed on the __right__ side of the fabric using a _press__ cloth______.

Why should the seam be allowed to cool before moving?

_____By allowing it to cool in place, the pressing will hold._______

Darts should be pressed on: ___a tailor's ham_____________________________

Seam allowances on pockets should be pressed over a: _small piece of cardboard_

Corners, such as on collars and cuffs, should be pressed on: __point presser____

On a curved hem, extra fullness can be eased in with: ____steam_______________

To keep the hem edge from showing on the right side of the garment:

____place a piece of fabric or brown paper between hem edge and garment__

It is always a good idea to use a: __press cloth__________________________

Ironing Tips for Clothing:

Always iron with the _____grain____________ of the fabric.

Iron ___small______ parts of article first; _____large_______parts last.

Use __moisture__ (steam, press cloth, spray, fabric finish, etc.) for maximum effect.

Other: ____

Name ________________________________ Period ____ Date ________________

WHAT WILL THIS SEWING MACHINE DO?

Directions: Make a sample of each of the following techniques, following the directions on each item and in your sewing machine instruction booklet. Write the number and name of the special presser foot/attachment and the machine setting needed. Use a 12-inch by 4-inch piece of fabric for most of the samples. Upon completion, neatly attach your samples to notebook paper and label each sample.

1. **Overlock Seam (for those without sergers)**

Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width setting: ________________

Purpose: Knit fabrics—gives stretch and strength to seams.
Woven fabrics—used to bind edges that ravel.

Directions: Make one sample: either one with knit fabric or one with woven fabric.

1. Sew a regular 5/8-inch seam.
2. Trim the edges to 1/4 inch.
3. Sew along edge with the overlock stitch.

2. **Blind Hem**

Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width setting: ____________

Uses: On flat hems, this technique does not work well where ease is necessary. It works best on stable fabrics that are not fine or sheer.

Directions: Measure and prepare a hem 1½ inches wide.
Finish edge of hem appropriately for the fabric.
Be sure hem is pressed well, and leave a few pins perpendicular to the edge for stability.
Place the hem against machine table with the edge of the hem extending to the right.
Fold the garment back so about 1/4 inch of the finished hem edge is exposed. Sew along that 1/4-inch edge of the hem, removing the pins as you sew. Adjust the machine zigzag width so that the needle just barely catches the fold of the garment.

WHAT WILL THIS SEWING MACHINE DO? - PAGE 2

3. **Decorative Stitching**
Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width settings: ____________

Directions: Cut an 8-inch by 12-inch piece of medium weight woven fabric without nap, and fold in half.
Make a sample with six (6) different decorative stitches or four (4) to six (6) variations of fewer stitches.

4. **Buttons With a Shank**
Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width settings: ____________
Other: ____

Directions: Follow the instructions in the owner's manual and sew three (3) four-hole buttons on the fabric, making a shank as you sew.
Make sure you have a shank foot, or use a toothpick if you do not have a special foot.
This method is great when sewing on three or more buttons.

5. **Rolled Hem: Binding Edges With A Special Foot**
Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width settings: ____________

Uses: Scarves, formals, fine and sheer fabrics, napkins, tablecloths, and wherever a narrow hem is needed.

Directions: To begin sewing, fold the fabric edge twice, about 1/4 inch each time.
Place fabric under presser foot and sew a few stitches to stabilize.
Leave the needle in the fabric and lift the presser foot.
Tautly hold the first fold under the presser foot with the left hand and draw it through the spiral in the special foot.
Lower the presser foot and guide the fabric, holding it taut and lifting it slightly.
The edge of the fabric must be vertical and go through the special foot in a straight line.

6. **Buttonholes With Automatic Buttonhole Stitch**
Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width settings: ____________
Other settings: ____

Directions: Follow the directions in the owner's manual and make three (3) buttonholes.

Name ______________________________ Period _______ Date ___________

WHAT WILL THIS SEWING MACHINE DO? - PAGE 3

7. **Buttonholes Without Automatic Buttonhole Stitch**

Name of special foot: ____________________ # ______
Stitch length setting: _________ Stitch width settings: ____________

Directions: Use two pieces of fabric with interfacing between them. Pretend your machine only has straight and zigzag stitches. Make a 1-inch buttonhole by:

- a. Stitching down one side with a very short narrow zigzag stitch; stop with the needle in the right position.
- b. Stitch down the other side, with stitches almost touching.
- c. Bar tack the ends with a very short, wide zigzag stitch.
- d. Stitch in place at the end of each bartack to keep stitches from pulling.
- e. Make two (2) more buttonholes using this method.

8. **Buttonholes With Cording**

Name of special foot: ____________________ # ______
Stitch length setting: _________ Stitch width settings: ____________
Other settings: ____

Directions: Make three (3) machine buttonholes and add cording for strength and shape. Use a knit fabric. Upon completion, remember to bring the cording strings to the wrong side (or inside) and tie a square knot to finish. Clip ends.

9. **Gathering With a Gathering Foot**

Name of special foot: ____________________ # ______
Stitch length setting: _________ Stitch width settings: ____________

Directions: Use a 3-inch by 36-inch piece of lightweight fabric for this sample. You will end with approximately 12 inches of gathered fabric.

Follow the manufacturer's directions. (See owner's manual.)

Optional: For extra credit, try adding a piece of ribbon or fabric for a waist band. This only works on light to medium weight fabrics.

Name ____________________________ Period _______ Date _________________

WHAT WILL THIS SEWING MACHINE DO? - PAGE 4

10. Gathering With a Basting Stitch

Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width settings: ____________

Directions: Sew two (2) rows of basting stitches (longest length) just above the 5/8-inch line. Make them about 1/8 inch apart.
Do NOT backstitch at the beginning and the end of the stitching.
Leave about 3 inches of thread at the beginning and end of each row.
Pull the bobbin threads of both rows and gather the fabric.

11. Gathering With a Cord (or Fishing Line)

Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width settings: ____________

Uses: For heavy fabric and net.

Directions: Set the machine on its widest zigzag stitch and longest stitch length.
Place cord/fishing line between the toes of the presser foot and zigzag over it, being careful not to stitch on the cord.
Leave enough cord/fishing line at the beginning and end to pull like a draw string.
Some machines have a special foot you can thread the cord through.
Sew two rows 1/4 inch apart, then pull cord ends.

12. Pintucking With the Double Needle

Name of special foot: ______________________ # ______
Stitch length setting: _________ Stitch width settings: ____________
Other: ____

Uses: Decoration and design.

Directions: Use a single piece of light weight, solid color fabric for this sample.
Cut the fabric about 12 inches square.
Pintucking is always stitched on the right side of the fabric.
Stitch six (6) rows of plain pintucking ½ inch apart, starting 1 inch from the edge of the fabric. Try different stitch lengths for different effects.
Then stitch four (4) more rows ½ inch apart with the cording underneath.
(See owner's manual for specific instructions.)
Some machines will have a hole in the needle plate for the cording.

Name ______________________________ Period ______ Date ________________

GETTING THE MOST OUT OF YOUR MACHINE - PAGE 5

13. Double Needle Seam Topstitching

Name of special foot: ______________________ # ______

Stitch length setting: _________ Stitch width settings: ____________

Other: ____

Uses: For top stitching, decorative stitches and pintucking.

Machine threading: Use two (2) top threads, running one thread through each side of the tension disk and then to each needle. The underside of the fabric will look like you zigzagged.

Directions: Sew a regular 5/8-inch seam. Press both edges to one side. Serge edges if needed.
From the top, stitch close to the seamline, stitching through all three layers.
DO NOT TRY TO BACKSTITCH WITH DOUBLE NEEDLES. Pull threads through and tie.

ALSO, NEVER TRY TO ZIGZAG WITH DOUBLE NEEDLES.

DYNAMICS OF CLOTHING II

UNIT IV: *EQUIPMENT*

TOPIC B: **EQUIPMENT CONSUMERISM**

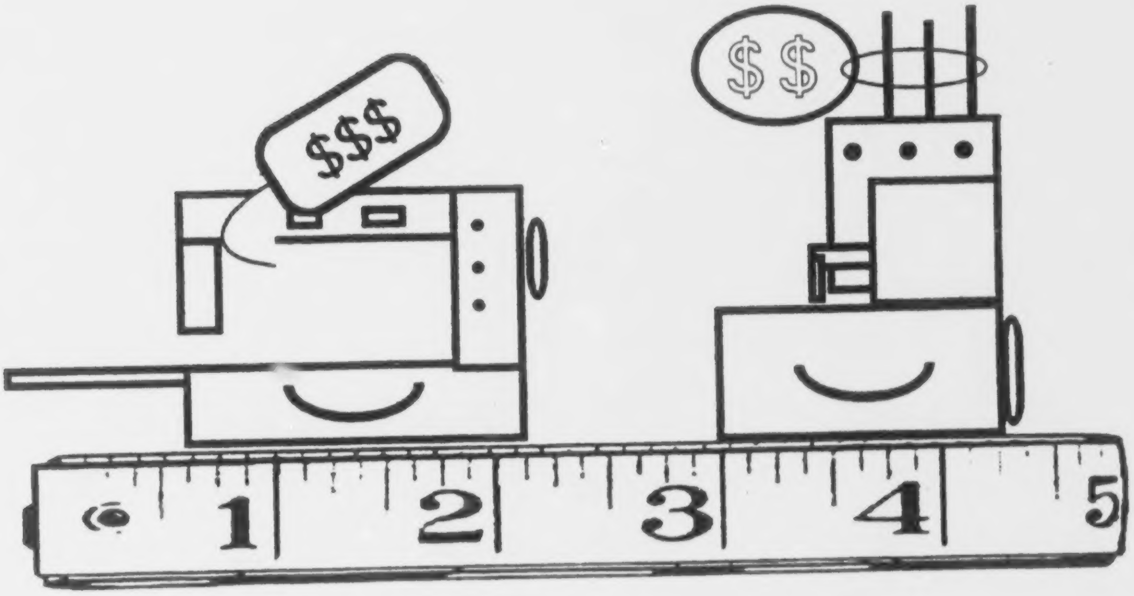
OBJECTIVE: Students will be able to select sewing equipment for purchase that will meet their needs in a functional manner.

CONCEPT: Technology has provided some very sophisticated equipment for use in sewing and pressing. Choosing the correct equipment to meet personal and/or family needs is not always easy but essential to make the best use of consumer dollars.

COMPETENCIES:

1. Itemize the various equipment needed for personal and/or family clothing construction.
2. Assess the costs of sewing equipment.
3. Compare the costs and features of various types of machines for potential purchase.

OPTIONS/ACTIVITIES	SUPPLIES NEEDED
1. Sewing Equipment Costs Survey	Copies of student activity guide (II-IV-45) Sewing supply catalogs
2. Sewing Machine and/or Serger Cost Survey	Copies of student activity guide (II-IV-46) Sewing equipment catalogs
3. Sewing Machines Video	Video from Meridian Education Corp. Video Player
4. Equipment Field Trip	Copies of student activity guide (II-IV-45 or II-IV-46)
5. Equipment Demonstrations	None unless requested by demonstrators



OPTIONS/ACTIVITIES

Option 1: **Sewing Equipment Costs Survey**

Have students list the sewing equipment they consider:

a) the basic essentials (bare necessities)
b) optional but really useful
c) really optional but fun to have

Then have the students visit one or two fabric stores and/or use catalogs to find the costs of each group of items and compare products, quality, functions, etc. (A student activity guide is provided for the students.) Upon completion, engage the students in a class discussion regarding interpretations of what falls into each of the three categories above, what they learned about costs, etc. Have each student share some element of their information with the rest of the class.

The activity could be expanded to have the students compare the quality of small equipment items, i.e., good, better, best. This would add another dimension to their survey.

Option 2: **Sewing Machine and/or Serger Costs Survey**

If preferred, have only the students do the above activity on large sewing equipment items—namely, a sewing machine and/or serger. Have the students compare two or three different brands for their survey.

Option 3: **Sewing Machines Video**

Show the video Sewing Machines from Meridian Education Corporation. This video helps students become wise consumers by taking into account such things as budget, warranties, references from friends, and machine capabilities as they shop for sewing machines. Introduces many brands and covers features found on the different models. Selecting a machine to fit an individual's sewing needs is emphasized.

Option 4: **Equipment Field Trip**

If possible, the teacher may choose to take the students on a field trip to a fabric store or two to complete their surveys. The only caution here is that the teacher needs to be careful not to promote or push one brand of equipment over another, particularly in smaller communities.

Option 5: **Equipment Demonstrations**

Ask representatives from various machine companies to come and demonstrate their equipment to the class. Ask them to bring their sewing machines and/or sergers, particularly, and explain the advantages and disadvantages of specific models. Request that the representatives bring mid-line models as well as top-of-the-line models to demonstrate. Also ask them to point out that while top-of-the-line models are quite fun to have, they generally are not necessary for most personal and/or family sewing.

RESOURCES

Videos

Sewing Machines, Meridian Education Corporation, Dept. H-92, 236 E. Front Street, Bloomington, IL 61701, 1-800-727-5507. Catalog No. 2105.

Catalogs

Clotilde, 2 Sew Smart Way-B8031, Stevens Point, WI 54481-8031, 1-800-772-2891.

EVALUATION/TEST QUESTIONS

COMPETENCIES:

1. **Itemize the various equipment needed for personal and/or family clothing construction.**

    1. Place a check by the items listed below that would be considered basic essentials for personal and/or family sewing.

        _____ Top-of-the-line sewing machine
        _____ Mid-line sewing machine
        _____ Bottom-line sewing machine
        _____ Top-of-the-line serger
        _____ Mid-line serger
        _____ Bottom-line serger
        _____ Ironing board
        _____ Steam iron
        _____ Press cloth
        _____ Tailor's ham
        _____ Tailor's board/point presser
        _____ Sleeve board
        _____ Pressing mitt
        _____ Seam roll
        _____ Pounding block/clapper
        _____ Needle board
        _____ Pressing pad
        _____ Sharp scissors or shears
        _____ Thread clips
        _____ Dressmaker pins
        _____ Quilting pins
        _____ Storage case for bobbins
        _____ Measuring tape
        _____ Yardstick
        _____ Seam gauge
        _____ Seam ripper
        _____ Pattern weights
        _____ Pin cushion
        _____ Tailor's chalk
        _____ Marking wheel
        _____ _______________
        _____ _______________
        _____ _______________
        _____ _______________

EVALUATION/TEST QUESTIONS

2. Assess the costs of sewing equipment.

3. Compare the costs and features of various types of machines for potential purchase.

1. Sewing equipment purchases should be based on:
   1) needs, 2) functionality, 3) budget, 4) durability, and 5) sewing skills.

2. Consumers should request information regarding the warranty on each piece of equipment.
   A.* True
   B. False

3. The expected life of the equipment should not be considered at the time of purchase.
   A. True
   B.* False

4. When purchasing sewing equipment, one should:
   A. Only look at one brand at one dealer's because it is less confusing.
   B. Compare one brand at several dealers'.
   C.* Compare several brands at several dealers'.
   D. Purchase a machine just like your mother's.

5. The costs of the sewing equipment on my survey:
   A. Was more than I expected
   B. Was about what I expected
   C. Was less than I expected.
   (Answers will vary.)

Name ______ Period ____ Date ______

SEWING EQUIPMENT COSTS SURVEY

Sewing Equipment	Basic Essentials	Optional But Really Useful	Really Optional But Fun to Have	Brand and Model I Would Purchase
Machines:				
Sewing Tools:				
Pressing Equipment:				

Name ____________ Period ____ Date ____________

SEWING MACHINES COST SURVEY

Brand Name	Basic Essentials Model No./Price	Optional But Really Useful Model No./Price	Really Optional But Fun to Have Model No./Price	Brand and Model I Would Purchase Model No./Price
Sewing Machines:				

Explain why you chose the brand and model you did: ____________________________

____

Brand Name	Basic Essentials Model No./Price	Optional But Really Useful Model No./Price	Really Optional But Fun to Have Model No./Price	Brand and Model I Would Purchase Model No./Price
Sergers:				

Explain why you chose the brand and model you did: ____________________________

____

DYNAMICS OF CLOTHING II

UNIT V: *CONSTRUCTION*

TOPIC A: **PROJECT SELECTION AND FABRIC PREPARATION**

OBJECTIVE: Students will be able to select patterns and fabrics that are compatible and within their skill range. They will also be able to appropriately prepare their fabric for cutting and sewing.

CONCEPT: Understanding which fabrics are suitable for which patterns is a skill that requires some time to develop. Preparing the fabric appropriately is a vital beginning step on any of type clothing construction project. If the fabric isn't prepared appropriately, the finished garment can be lost through normal care procedures.

COMPETENCIES:

1. Assess level of personal sewing skills.
2. Select sewing project(s) that incorporate(s):
    a. knowledge of fabric construction and care
    b. personal wardrobe plan
    c. construction techniques to be learned
    d. level of personal sewing skills
3. Review guidelines for fabric selection.
4. Review preparation of fabric for cutting and sewing.
5. Review special handling techniques required for specialty fabrics.
6. Prepare construction schedules.

NOTE: The teacher will need to refer to the materials provided in Dynamics of Clothing I curriculum, Unit III, for use in this topic as needed. Some of the items will be for review while the use of others will provide continuity between the two curricula.

	OPTIONS/ACTIVITIES	**SUPPLIES NEEDED**
1.	Personal Sewing Skills Assessment	Copies of skill assessment tool for students (I-III-121 and I-III-122)
2.	Project Selection	Project selection records (I-III-123)
3.	Fabric Selection	Review materials as needed (I-III-19 through I-III-27)
4.	Fabric Preparation	Review materials as needed (I-III-28 through (I-III-30)
5.	Specialty Fabrics	Fabric swatches Care and handling information (Refer to materials in Unit III of this curriculum)
6.	Construction Schedules	Copies of construction schedules for students (I-III-126 through I-III-28)

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OPTIONS/ACTIVITIES

1. **Personal Sewing Skills Assessment**
   Review and use the applicable materials from the Dynamics of Clothing I curriculum, Unit III, Topic C to assess the skill level of the students and aid them in their project selections. Project choices should reinforce skills already learned as well as a challenge to learn some new skills.

2. **Project Selection**
   Have students select their projects based upon their skill level, personal ability, and the dictates of current fashion. Projects should be subject to instructor's approval and/or may be assigned by the instructor.

3. **Fabric Selection**
   Review some of the basic guidelines for selecting appropriate fabric for the pattern, and interfacings for the fabric. These can be found in the Dynamics of Clothing I curriculum, Unit III, Topic C.

4. **Fabric Preparation**
   Review basic fabric preparation techniques with the students. These materials can be found in the Dynamics of Clothing I curriculum, Unit III, Topic C. Assist students in preparing their fabric prior to layout and cutting.

5. **Specialty Fabrics**
   Introduce specialty fabrics used in the apparel industry that were not included in Dynamics of Clothing I class. Some examples might be:
   - tricot
   - velvet or velveteen
   - lace
   - ripstop
   - net or tulle
   - Spandex
   - fabrics for outdoor gear/wear

   The teacher will need to have samples of these fabrics and discuss specific precautions that need to be taken with each one. The discussion should cover fabric maintenance as well as preparation and handling.

6. **Construction Schedules**
   Have students prepare their construction schedules for each project. Sample construction schedules are provided in the Dynamics of Clothing I curriculum, Unit III, Topic C. The merits of using construction schedules are discussed within that unit.

EVALUATION/TEST QUESTIONS

COMPETENCIES:

3. Review guidelines for fabric selection.

1. Any fabric can be used for any pattern and look great.
   A. True
   B.* False

2. The pattern envelope gives a list of fabrics that will work best with the pattern.
   A.* True
   B. False

3. The fabrics listed on the pattern envelope are the only fabrics that will work with the pattern.
   A. True
   B.* False

4. Fabrics of the same type as those listed generally work fine with the pattern, too.
   A.* True
   B. False

5. The interfacing should NOT be:
   A.* Heavier than the garment fabric, but it can be lighter
   B. Lighter than the garment fabric, but it can be heavier
   C. Doesn't make any difference

6. When using iron-on interfacing, the seam allowances should be:
   A. Left on
   B.* Cut off
   C. Doesn't make any difference

7. With an interfacing that is sewn in, one needs to _______ the seam allowances to reduce bulk.
   A. Overcast
   B. Stitch
   C.* Trim

8. Woven interfacings need to be cut:
   A.* On grain
   B. Off grain
   C. Doesn't make any difference

◆◆◆

EVALUATION/TEST QUESTIONS

9. Non-woven interfacings need to be cut:
   A. On grain
   B. Off grain
   C.* Doesn't make any difference

10. Sometimes woven interfacings need to be cut on the bias.
   A.* True
   B. False

11. Lining fabric should be:
   A. Heavier than the garment fabric
   B.* Lighter than the garment fabric
   C. Doesn't make any difference

12. If the garment fabric is washable, the lining fabric should be:
   A. Dry cleanable only
   B.* Washable
   C. Doesn't make any difference

13. It is important to check any fabric being considered for purchase to see if it is woven on-grain and if the pattern is on-grain.
   A.* True
   B. False

4. Review preparation of fabric for cutting and sewing.

1. List four (4) things one should do to prepare the fabric for cutting.
   • preshrink fabric
   • press flat
   • straighten grainlines
   • line up selvages

2. All interfacing should be preshrunk, too.
   A. True
   B.* False

3. Lining fabric should be preshrunk prior to cutting, too.
   A.* True
   B. False

4. It is possible to get the grainline absolutely straight on every piece of fabric.
   A. True
   B.* False

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EVALUATION/TEST QUESTIONS

5. Review special handling techniques required for specialty fabrics.

1. Garments made out of tricot should be cut with the stretch of the fabric:
   A. Going up and down on the body
   B.* Going around the body
   C. It doesn't make any difference

2. The ribs of the fabric go:
   A.* Up and down on the right side of the fabric
   B. Around the body on the right side of the fabric
   C. There is no right or wrong side to tricot

3. Velvet or velveteen should always be pressed from:
   A. The right side of the fabric
   B. The inside of the fabric
   C.* The wrong side of the fabric

4. Velvet or velveteen should be pressed on a:
   A.* Needle or velva board
   B. Pressing ham
   C. Tailor's block

FABRIC SUITABILITY FOR OUTDOOR WEAR/GEAR

MATERIALS	Anorak	Bivy Sack	Cagoule	Gaiters	Mitts	Parka	Poncho	Rain Pants	Rucksacks	Sleeping Bag	Stuff Sack	Tarp	Tent	Underwear	Wind Pants	Wind Shirt
For Insulation:																
silk and cotton knits														x		
synthetic knits					x									x		
synthetic pile and bunting					x	x								x		
wool knits					x	x								x		
down						x				x						
fiberfill					x	x				x						
microfiber	x				x	x										
For Heat Barrier:																
Tex-O-Lite	x					x				x						
For Vapor Barrier:																
1.4 oz. coated nylon										x						
For Wind Protection:																
cotton	x					x										
nylon taffeta and ripstop	x					x				x			x		x	x
Dacron taffeta and ripstop	x					x				x			x		x	x
nylon/cotton	x			x		x										
polyester/cotton	x			x		x										
For Rain Protection:																
coated nylon/Dacron			x					x			x	x	x			
cotton (water repellent)	x					x	x									
For Wind and Rain Protection:																
breathable waterproof	x		x	x	x	x	x	x		x			x			
For Extra Strength:																
nylon packcloth				x	x				x			x				
"bulked" nylon					x				x			x				
cotton canvas									x			x				
synthetic canvas												x				
For Bug Protection																
nylon netting		x											x			

TRICOT

Tricot has all the qualities desirable in lingerie: durability, easy care, and comfort because of the stretchability. Tricot is a knit fabric in which each yarn forms loops interlocking above, below, and sideways. The ribs formed by the loops run length-wise on the right side and crosswise on the wrong side. Tricots of 100 percent nylon, 100 percent triacetate, and blends of the two are most common.

Formerly very hard to find, tricot is now available to anyone willing to take a little trouble. Tricot comes in solids and prints and in widths ranging from 44 inches to 108 inches. Tricot weights vary from very sheer (15-20 denier) through medium (30-40 denier) to heavy (50-60 denier). The weight selected for lingerie depends on personal taste and the design and function of the garment. Medium weight is most generally used.

Findings

Use "soft" elastic. This usually has one straight and one fluted or pico edge which may be placed either up or down. One hundred percent nylon elastic is best, but the most easily found elastics are blends with varying percentages of nylon, rayon, and rubber. Use ½-inch wide elastic for the waist and 1/4 inch or less for the legs.

Almost any shrink-proof lace can be used providing it is not too stiff or heavy. Stretch-lace in several widths is ideal for curved edges because it is easy to manipulate. Non-stretch lace comes in wider widths and makes an excellent finish on straight edges. At corners, all laces have to be mitered.

Tools

Your regular sewing equipment can be used with a few modifications. Use bent shears to cut the fabric to reduce the amount of lift and ensure greater accuracy. Shears must be sharp; wipe lint from blades frequently to maintain sharpness. Use the finest, sharpest pins you can find. Mark fabric with transparent tape and a red or blue pencil which will wash out. Do NOT use lead pencil or carbon paper. Use a ball-point needle, preferably a size 10 or 70. Use a blended thread to sew lingerie. Because of their polyester core, these threads are fine yet strong and have the "give" necessary for tricot.

Fabric Preparation

Tricot can become stretched while on the bolt. To relax yarns and also remove any excess finishing solution, thoroughly soak or machine wash the fabric. Use a fabric softener to reduce static electricity. If you are in doubt which is the right and wrong side, stretch fabric edge on the crosswise grain and the fabric will always roll to the right side.

Pinning, Cutting, and Marking

For maximum accuracy, cut off pattern margins (not seam allowances) before placing on fabric. Note the seam allowances. They may be different from those on other patterns and may vary even in the same pattern.

DYNAMICS OF CLOTHING II

UNIT V: *CONSTRUCTION*

TOPIC B: **INTERMEDIATE CONSTRUCTION TECHNIQUES**

OBJECTIVE: Students will complete a number of sewing projects and/or samples incorporating intermediate level sewing skills.

CONCEPT: It is important for the students to have an opportunity to apply and practice the sewing techniques learned and skills developed. The application gives purpose for the learning.

COMPETENCIES:

1. Incorporate and complete the following suggested intermediate level construction techniques in various projects:
   - a. seams and seam finishes
   - b. darts, tucks, and pleats
   - c. interfacing
   - d. binding (bias and bias treatments)
   - e. zippers
   - f. pockets
   - g. sleeves, plackets, and cuffs
   - h. collars and necklines
   - i. lining/underlining
   - j. facings
   - k. waistbands and belts
   - l. hem treatments and finishes
   - m. speed tailoring
   - n. ruffles and trims
   - o. bound buttonholes
   - p. working with specialty fabrics

2. Follow pattern information, marking guides, and sewing guidelines.

3. Utilize appropriate pressing methods throughout construction.

4. Demonstrate mastery of intermediate level construction techniques on samples and/or sewing projects.

5. Utilize time-management skills to complete projects.

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. Intermediate Construction Techniques and Projects	Management Strategies and Construction Techniques binder with A Guide to Fashion Sewing
2. Bias Binding and/or Treatments	Fabric to cut bias strips Supplies for demonstration
3. Collars and Necklines	Fabric and supplies for demonstration Copies of patterns and instructions for students
4. Different Types of Darts and Tucks	Fabric and supplies for demonstration Copies of patterns and instructions for students
5. One-Piece Facings	Student project for demonstration
6. Hemming Stitches Video	Video and video player Copies of student activity guide (II-V-34)
7. Interfacings	Samples of interfacing fabrics displayed and labeled Copies of student activity guide
8. How to Alter a Pattern Video	Video and video player Copies of student activity guide (II-V-35)
9. How to Do Pockets Video	Video and video player Copies of student activity guide (II-V-36)
10. Pockets Demonstration(s)	Fabric and supplies for demonstration(s) Copies of patterns and instructions for students
11. Sleeves	Student project for demonstration
12. Plackets	Fabric and supplies for demonstration(s) Copies of patterns and instructions for students

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
13. Lingerie Techniques Luxurious Lingerie Video	Video and video player OR Materials for sewing lingerie Fabric and supplies for demonstration Copies of patterns and instructions for students
14. Outdoor Gear/Wear	Copies of book, Sew and Repair Your Outdoor Gear Fabric and supplies for demonstration(s) Copies of patterns and instructions for students
15. More Plaids All About Plaids Video	Video and video player OR Copies of pamphlet from McCalls OR
Sewing With Stripes and Plaids Filmstrip	Filmstrip and projector
	Several pieces of plaid fabric Pattern pieces and pins Copies of student activity guide (II-V-38 and II-V-39)
16. Speed Tailoring Techniques a. Tailor's Tacks b. Shoulder Pads c. Bound Buttonholes	Fabric and supplies for demonstration(s) Copies of patterns and instructions for students
17. Waistbands/Cuffs	Fabric and supplies for demonstration(s) OR Student projects Copies of patterns and instructions for students
18. Other Waist Seams	Fabric and supplies for demonstration Instructions for students
19. Zippers	Fabric and supplies for demonstration(s) Instructions for students
20. Construction Confetti Crossword Puzzle	Copies of student activity guide (II-V-42 and II-V-43)

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TEACHER BACKGROUND INFORMATION

Note #1: **About the Teacher Resources -** Included in the binder, MANAGEMENT STRATEGIES AND CONSTRUCTION TECHNIQUES, is a copy of the textbook, A GUIDE TO FASHION SEWING, from Fairchild Books and Visuals. Index tabs have been integrated throughout this resource to facilitate use. This is an excellent resource that outlines most sewing techniques in a step-by-step manner with clear illustrations. Additional resources for particular techniques have been added at the end of the corresponding sections.

It is important to note that the materials in this textbook are copyrighted and the teacher does not have the right to make copies for classroom distribution. It has been provided as a teacher reference, and each teacher will need to purchase some copies of the textbook for classroom use. (Purchasing information is included in the RESOURCE section of this topic.)

However, the teacher is free to copy any resources developed by the Utah State Office of Education included in this curriculum.

Note #2: **About Mini-Lessons -** Mini-lessons for some of the construction techniques and terms are included in this topic. These are particularly useful for "lesson days" or can be adapted for individualized instruction packets.

There are a lot of mini-lessons that can be developed utilizing the information provided in this curriculum. Some mini-lessons have been included in Options 2 through 20. Suggestions for additional mini-lessons are:

- Collars
- Attaching waistbands and/or cuffs
- Zippers (more than one)
- Pockets (more than one)
- Gathering and easing
- Shoulder pads
- Bound buttonholes
- Lingerie
- Knit construction methods
- Outdoor gear/wear
- More plaids

If you need to review some of the basics to incorporate the principles of line and design, refer to the materials in the Dynamics of Clothing I curriculum for the following:

- Color (See Unit II Topic B)
- Line and design (See Unit II Topic A)

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ACTIVITIES/OPTIONS

Option 1: Intermediate Level Construction Techniques and Projects

As the instructor assists the students in planning their projects, it is suggested that as many of the following construction techniques as possible be included during the course of the class. The instructor can refer to the resource, A GUIDE TO FASHION SEWING, which is included as an integral part of this curriculum in the MANAGEMENT STRATEGIES AND CONSTRUCTION TECHNIQUES binder, for technique steps and illustrations. The page numbers listed refer to the pages covering that/those technique(s) in the text.

	CONSTRUCTION TECHNIQUES	REFERENCE PAGES
a.	Binding (Bias and bias treatments)	
	Cutting bias strips	131-132
	Joining bias strips	133-134
	Single bias binding	135-138
	- See Option 2	
b.	Bound Buttonholes	
	- See Option 16	
c.	Collars and necklines	
	Shirt collar with separate stand	266-268
	Tie collar	269-270
	Collars with front and back facings	271-273
	Collars with partial facing	274-276
	Collars without facing	277-279
	- See Option 13	
d.	Darts, tucks, and pleats	
	Shaped tapered dart	110-112
	Cut-away dart	113-116
	Double dart	117-118
	Release tucks	119-121
	- Also Successful Sewing, pages 275-278	
	- See Option 4	
e.	Facings	
	One-piece neckline or armhole	328-331
	- Also Successful Sewing, pages 305-307	
	- See Option 5	

ACTIVITIES/OPTIONS

f. Hems and hem finishes
  Hand hemming stitches 353-354
  Machine hemming stitches 355-355A
  Corner hem 356
  Serged hem
  - Also Successful Sewing, pages 347-350
  - See Option 6g. Interfacings
  Machine basting and pressing 124-128
  - See Successful Sewing, pages 213-218
  - See Option 7

g. Lining/Underlining
  Free hanging skirt lining 312-314
  - Also Successful Sewing, pages 343-344
  - See Option 16

h. Pattern Alterations
  Fitting the pattern, pages 14-16
  - See Option 8

i. Pockets
  Front hip pockets 189-192
  Pockets with flaps 196-200
  - See Options 9 and 10

j. Sleeves, plackets, and cuffs
  Set-in sleeves 227-229
  - Also Successful Sewing, pages 319-320
  Continuous sleeve placket 235-238
  Rolled hem sleeve placket 239
  - Also Successful Sewing, pages 323-325
  Standard sleeve cuff 245-248
  Shirt cuff 249-252
  - Also Successful Sewing, pages 328-328
  - See Options 11, 12, 17

k. Specialty fabrics
  Lingerie techniques
  - See Option 13
  - Sewing Lingerie, Singer Sewing Books
  Outdoor wear
  - See Option 14
  - Sewing Activewear, Singer Sewing Books
  Plaids
  - See Option 15

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ACTIVITIES/OPTIONS

l. Speed Tailoring
    Bound buttonholes
    Shoulder pads
    Tailor's tacks
    Linings
    - Speed Tailoring by Palmer and Pletsch
    - Speed Tailoring by Singer
    - Clothing, pages 433-435, 465-467
    - See option 16

m. Waistbands and waist seams

Traditional pant waistband	337-339
Outside casing	344-345
Elastic enclosed in waistline seam	346-347

- Also Successful Sewing, pages 339-345
- See Options 17, 18

n. Zippers

Mock fly-front lapped application	158-161
Invisible application	167-169

- Also Successful Sewing, pages 296-299
- See Option 19

Any activities in the Dynamics of Clothing I curriculum that were not utilized in that course can be used in this class for learning and/or reinforcement.

Option 2: Bias Binding and/or Treatments

Demonstrate how to:
- Cut bias strips, including how to determine the 45 degree angle of a fabric
- Join bias strips together
- Apply the binding

Discuss situations where bias binding is necessary and why it is so useful.

Assign the students to take a piece of fabric, cut two (2) or three(3) bias strips from it, sew them together, and apply them to the straight edge of the fabric.

Option 3: Collars and Necklines

Demonstrate the application of the following types of collars/necklines:
- Flat or roll collar
- Neckline with facing only
- Others as needed
- Shirt collar with separate stand
- Ribbing (if not included in Dynamics of Clothing I)

It is helpful if the samples demonstrated by the teacher are placed on display for the students to use as reference. It is even better if the teacher has a step-by-step set of samples for the students to follow.

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ACTIVITIES/OPTIONS

Option 4: **Different Types of Darts and Tucks**

Demonstrate the following types of darts and tucks:
- Contour dart (double dart or double fisheye dart)
- French dart (shaped tapered dart)
- Cut-away dart
- Release tucks

All of these darts are illustrated step by step in A Guide to Fashion Sewing, published by Fairchild Books and Visuals. Review the basics of darts with the students, e.g., direction of pressing, pressing on the wrong side only, tying knots in the thread at the point, correct terms, etc. It is helpful if the samples demonstrated by the teacher are placed on display for the students to use as reference. The teacher may choose to have the students make samples of these darts and tucks.

Option 5: **One-Piece Facings**

When one of the students has a pattern with a one-piece facing (front and back), gather the class around and discuss the application of one-piece facings. Point out the necessity of trimming, clipping, eliminating bulk, pressing regularly, etc.

Option 6: **Hemming Stitches Video**

Show the video, Hemming Stitches, from Meridian and discuss the major points regarding hem stitches. A student activity guide for this video is provided in the resource section of this unit.

The teacher may wish to have the students do samples of the hemming stitches discussed in the video.

Option 7: **Interfacings**

Display a number of different types of interfacings on a bulletin board, being sure to label each one with name, fiber, type of construction, uses, advantages, disadvantages, etc. This can be used as a reference point regularly throughout the class. Develop a student activity guide to go with the bulletin board, and have the students complete it during a teacher demonstration or as an individual study. The activity guide could have a section for students to fill in information on the interfacings they choose for their projects, with an explanation as to why each particular interfacing was chosen for that specific project.

Option 8: **How to Alter a Pattern Video**

Show the video, How To Alter A Pattern, from Meridian and discuss the major points regarding alterations. A student activity guide for this video is provided in the resource section of this unit. Upon completion, have the students apply the principles learned to the next pattern/project they work with.

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ACTIVITIES/OPTIONS

Option 9: **How To Do Pockets Video**
Show the video, How To Do Pockets, from Meridian and discuss the major points regarding pockets. A student activity guide for this video is provided in the resource section of this unit.

Option 10: **Pockets Demonstration(s)**
Demonstrate the following types of pockets:
- Front hip pockets
- Pockets with flaps

Both of these are illustrated step by step in A Guide to Fashion Sewing published by Fairchild Books and Visuals. Review the basics of pockets with the students, e.g., directional stitching, pressing as you go, correct terms, etc. It is helpful if the samples demonstrated by the teacher are placed on display for the students to use as reference. The teacher may choose to have the students make samples of these pockets.

Option 11: **Sleeves**
Review the process of setting in sleeves with the students. If the material was not covered in Dynamics of Clothing I, it should be covered here. Refer to A Guide to Fashion Sewing for step-by-step illustrations. While going over this material, be sure to include a review on correct terms related to sleeves, as well as any general techniques that are incorporated.

Option 12: **Plackets**
Demonstrate the following types of plackets:
- Continuous sleeve placket
- Rolled hem sleeve placket
- Slash placket (optional)

The continuous sleeve placket and the rolled hem sleeve placket are illustrated step by step in A Guide to Fashion Sewing published by Fairchild Books and Visuals. The directions for a slash placket are provided on page 37 of this unit. Review the basics of plackets with the students, e.g., directional stitching, pressing as you go, correct terms, etc. It is helpful if the samples demonstrated by the teacher are placed on display for the students to use as reference. Have the students make samples of these plackets.

A student activity guide with the directions for a slash placket is included in this unit.

Option 13: **Lingerie Techniques**
Use the video, Luxurious Lingerie, and/or the booklet by the same name from Nancy's Notions to provide the basics of sewing lingerie. See page II-V-8 of this curriculum for some background information on sewing with tricot.

ACTIVITIES/OPTIONS

Demonstrate various lingerie sewing techniques and have the students do samples and/or apply the techniques to projects. The basic techniques to cover are:

- Sewing seams
- Applying lace
- Applying elastic
- Working with tricot fabric
- Using correct size needle
- Using correct type of thread, lace, elastic

Option 14: **Outdoor Gear/Wear**

Introduce the students to sewing and repairing their outdoor gear and wear. There is a basic booklet published by The Mountaineers, Sew and Repair Your Outdoor Gear, written by Louise Lindgren Sumner. It includes tips and techniques for working with today's materials, directions for alterations and repairs, and patterns and instructions for sewing clothing and equipment. You will need to purchase several copies for multiple use in the classroom.

(Teachers who have introduced this unit in their schools have had a marked increase in the male enrollment in their classes. Lots of learning besides sewing takes place around those sewing machines, and as a result, many of the students enroll in additional classes within the department. Be brave and branch out.)

Option 15: **More Plaids**

Show the video, All About Plaids, from Simplicity, or the filmstrip, Sewing With Stripes and Plaids, from McCalls. Simplicity also has a pamphlet by the same title. A student activity guide for this pamphlet is provided in the resource section of this unit. If the pamphlets are used, this activity can be individualized and/or put into packet format for self-learning.

Be sure to emphasize the difference between printed and woven plaids and the complications that can come from plaids that have been printed off-grain. A sample piece of fabric that is printed off-grain helps to illustrate this point. Encourage students to always purchase woven plaids for quality products.

The teacher may wish to have the students practice laying out a pattern on plaid fabric(s) so they can actually apply the principles of working with plaids. The teacher will need to have several pieces of plaid fabric on hand to identify various types of plaids and the problems presented by each type.

Option 16: **Speed Tailoring Techniques**

Consult the speed tailoring book for tips and techniques. There are several on the market—one by Singer, another by Palmer and Pletsch, as well as others. Some techniques to be included are:

- Tailor's tacks
- Linings
- Shoulder pads
- Bound buttonholes

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ACTIVITIES/OPTIONS

How far the teacher wants to go with this topic depends upon the skill levels of the students involved and class time available. This will vary significantly throughout the state. However, it is an exciting concept that challenges students to new heights and brings much pride to a young sewer. If your students are involved in the Make-It-With-Wool contests, this unit will be a must.

Option 17: **Waistbands/Cuffs**

Explain that applying cuffs and waistbands in the same process, just applied in different areas. Therefore, students can have the same learning process whether they are applying a cuff or a waistband.

Demonstrate the application of a traditional pant/skirt waistband or a cuff. Both of these are illustrated step by step in A Guide to Fashion Sewing published by Fairchild Books and Visuals. Review the basics of sewing with the students, e.g., directional stitching, pressing as you go, correct terms, etc. It is helpful if the samples demonstrated by the teacher are placed on display for the students to use as reference. Have the students make a sample cuff and apply either cuffs or a waistband on a project.

Option 18: **Other Waist Seams**

Demonstrate the following types of waist seams:
- Outside casing
- Elastic enclosed in waistline seam

Have students make samples of these waist seams. Identify other places where they could be used in sewing construction.

Option 19: **Zippers**

Demonstrate the following types of zippers:
- Mock fly-front lapped application
- Invisible application

Refer to pages 158-161 and 167-169 of A Guide to Fashion Sewing for step-by-step directions. Upon completion, have students practice applying these two types of zippers.

Option 20: **Construction Confetti Crossword Puzzle**

Have students complete the crossword puzzle as a review of construction-related terms and definitions.

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RESOURCES

Videos

How to Alter a Pattern, Meridian Education Corporation, Dept. H-92, 236 E. Front Street, Bloomington, IL 61701. 1-800-727-5507. Catalog No. 2118.

How to Do Pockets, Meridian Education Corporation, Dept. H-92, 236 E. Front Street, Bloomington, IL 61701. 1-800-727-5507. Catalog No. 2115.

Hemming Stitches, Meridian Education Corporation, Dept. H-92, 236 E. Front Street, Bloomington, IL 61701. 1-800-727-5507. Catalog No. 2108.

Measuring and Fitting, Meridian Education Corporation, Dept. H-92, 236 E. Front Street, Bloomington, IL 61701. 1-800-727-5507. Catalog No. 2107.

Luxurious Lingerie, Nancy's Notions, P. O. Box 683, Beaver Dam, WI 53916-0683, also has booklet by the same name with good information in condensed version. Catalog No. TR-600. 1-800-833-0690. Video is one hour.

All About Plaids, Simplicity Educational Division, 200 Madison Ave, New York, NY 10016.

Books

A Guide to Fashion Sewing, Fairchild Books and Visuals, 7 West 34th Street, New York, NY 10001-8191. 1-800-247-6622. Catalog No. 748-0.

Tailoring, Singer Sewing Co., 135 Raritan Center Pkwy, Edison, NJ 08818, 908-287-0707.

Speed Tailoring, Palmer/Pletsch, P.O. Box 12046, Portland, OR 97212, 503-274-0687.

Sew and Repair Your Mountain Gear, by Louise Lindgren Sumner, The Mountaineers, 306 Second Ave. West, Seattle, WA 98119, 1-800-553-4453.

Couture, The Art of Fine Sewing, by Roberta Carr, Nancy's Notions, P.O. Box 683, Beaver Dam, WI 53916-0683. 1-800-0690. Catalog No. CAF-100.

Couture Sewing Techniques, by Claire Shaeffer, Nancy's Notions, P.O. Box 683, Beaver Dam, WI 53916-0683. 1-800-0690. Catalog No. CST-4.

Clothing, by Jeannette Weber, Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004. 1-800-334-7344.

Pamphlets

All About Plaids, Simplicity Educational Division, 200 Madison Avenue, New York, NY 10016.

Filmstrip

Sewing with Stripes and Plaids, McCall Pattern Company, 230 Park Avenue, New York, NY 10163.

EVALUATION/TEST QUESTIONS

BIAS STRIPS AND BINDING

1. Bias strips should be cut on a ______ angle.
   A. 30 degrees
   B.* 45 degrees
   C. 55 degrees
   D. 90 degrees

2. Name three (3) places where bias strips can be used.
   - On curved edges
   - For binding
   - Necklines
   - Plackets

3. To sew two pieces of bias strip together, the ends must be placed at:
   A.* Right angles
   B. Left angles
   C. Straight

4. Yokes, pockets, and cuffs are sometimes cut on the bias for special effects.
   A.* True
   B. False

5. The main reason for cutting fabric on the bias is:
   A. For decoration
   B. To increase the difficulty of the pattern
   C.* For the give provided by the bias

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EVALUATION/TEST QUESTIONS

COLLARS AND NECKLINES

1. Collars with a separate stand are usually found on:
   A.* Shirts
   B. Blouses
   C. Jackets

2. There are several methods for applying collars to garments.
   A.* True
   B. False

3. Collars are used to enhance:
   A. The waistline of the garment
   B. The sleeve of the garment
   C.* The neckline of the garment

4. It is not necessary to use interfacing on collars.
   A. True
   B.* False

5. The undercollar should be understitched to both seam allowances, with the stitching as close to the edge as possible.
   A.* True
   B. False

6. Before turning a collar right side out, it should be:
   A. Trimmed, clipped, and topstitched
   B.* Trimmed, clipped, and pressed
   C. Topstitched and pressed

7. The collar corners can be pulled out with a:
   A. Pin
   B. Point turner
   C. Pencil point covered with plastic
   D.* All of the above

8. The stand is sewn between:
   A. The cuff and the sleeve
   B. The yoke and the collar
   C.* The collar and the bodice back

9. The stand is sewn to the ____________ first.
   - collar

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EVALUATION/TEST QUESTIONS

DARTS, TUCKS, AND PLEATS

1. What purpose does the center line in a dart serve?
   - it is the folding line

2. Why is it necessary to have darts in our clothing?
   - to introduce shape into a flat piece of fabric

3. Three common areas where a dart is usually found in garments are:
   - bustline
   - hipline
   - shoulders

4. Which type of darts can be combined to form a contour dart?
   - straight dart

5. Why are French darts found only in the front of a garment?
   - they start at the sideseam and go to the bustline

6. A horizontal dart should be pressed:
   - downward

7. A vertical dart should be pressed:
   - toward the center

8. When should you slash a dart?
   - contour darts must be slashed to lay flat

9. Why would a person use a cut-away dart?
   - to make it lay flatter

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EVALUATION/TEST QUESTIONS

FACINGS

1. Facings are used to:
   A. Conceal raw edges
   B. Add support to the garment
   C. Create smooth, flat edges on the garment
   D.* All of the above

2. The neckline of the garment should be staystitched before adding a collar or facing to keep it from stretching.
   A.* True
   B. False

3. Most facing areas need to be interfaced. The interfacing should be attached to the garment rather than the facing.
   A. True
   B.* False

4. The facing and the garment should be placed ______________ for stitching.
   A. With the right side of the facing against the wrong side of the garment
   B. With the right side of the garment against the wrong side of the facing
   C.* With right sides together
   D. With wrong sides together

5. When applying facings, it is important to match:
   A.* Seamlines and notches
   B. Seamlines only
   C. Notches only

6. The outer edges of the facing fabric should be finished so they don't ravel.
   A.* True
   B. False

7. Facing seams need to be understitched to the facing and pressed.
   A.* True
   B. False

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EVALUATION/TEST QUESTIONS

HEMS AND HEM FINISHES

1. The lower edge of a garment should have a smooth, clean finish, and measure evenly from the floor.
   A.* True
   B. False

2. It is best to mark the hemline by measuring from the waistband.
   A. True
   B.* False

3. The width of the hem should be:
   A. Uneven around the garment
   B.* Even around the garment
   C. It doesn't matter

4. The edge of the hem should be ______________ so it doesn't ravel.
   - finished

5. Hems should be pressed from the:
   A.* Wrong side of the garment
   B. Right side of the garment
   C. It doesn't matter

6. Hems which are almost invisible are done so they catch only _____ thread(s) of the front fabric at a time.
   A. Four
   B. Three
   C. Two
   D.* One

7. Three different kinds of hand hemming stitches are:
   - pickstitch
   - catchstitch
   - slipstitch/blindstitch

8. A corner hem is automatically turned up into position as part of the facing.
   A.* True
   B. False

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EVALUATION/TEST QUESTIONS

INTERFACINGS

1. Interfacing should be attached to:
   A. The right side of the facing
   B.* The wrong side of the facing
   C. It doesn't matter

2. Interfacing is a layer of fabric cut in the same shape as the facing piece and placed between the garment and the facing pieces.
   A.* True
   B. False

3. Interfacing is used to give support and body to garment parts such as: (Name 5)
   - collars
   - cuffs
   - lapels
   - pockets
   - necklines
   - yokes
   - waistbands
   - front openings

4. The two major methods of applying interfacing are:
   - machine basting
   - pressing (iron on)

5. The edge of the interfacing should be finished to keep it from raveling.
   A. True
   B.* False

6. Two major things to consider when selecting interfacing are:
   - the weight of the fabric
   - the care of the garment

7. Interfacings don't have to be cut on the grainline like the fabric.
   A. True
   B.* False

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EVALUATION/TEST QUESTIONS

PATTERN ALTERATIONS

1. Alterations for better garment fit should be made:
   A. After the garment is cut out
   B.* Before the garment is cut out
   C. Either time is fine

2. One way to check the fit is to pin the pattern pieces together at the seamlines and try on the pattern.
   A.* True
   B. False

3. Another way to check the fit is to check the body measurements against the pattern envelope.
   A. True
   B.* False

4. Describe how to lengthen or shorten a pattern, using diagrams.

5. Describe how to take in (narrow) or let out (widen) a pattern, using diagrams.

6. Describe how to move a dart for better fit, using diagrams.

POCKETS

1. Front hip pockets usually start at the ___________ and end at the ____________.
   A. Front; back
   B. Side seam; waist
   C.* Waist; side seam
   D. Back; front

2. They are used in these two (2) types of garments:
   - pants
   - skirts

3. The opening of the front hip pocket is:
   A.* Visible
   B. Invisible
   C. Can be either way

4. Pocket flaps are used to cover the top of a patch or bound pocket on simple garments.
   A.* True
   B. False

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EVALUATION/TEST QUESTIONS

SEAMS

1. Cutting the seam allowance by using a slanting angle with the scissors while holding the scissors horizontally, flat, and close to the fabric is called:
   A. Notching
   B. Clipping
   C.* Layering
   D. Trimming

2. Layering a seam allowance means the:
   A. Layers of fabric are trimmed and clipped to the stitch line
   B.* Layers of fabric are cut to different widths, with the wider seam on the outside edge
   C. Seam allowance is trimmed even to reduce bulk

3. To layer the seam of a heavy fabric, you should:
   A. Trim both sides the same amount
   B. Avoid trimming seams more than 1/16 of an inch
   C.* Trim the facing edge closer than the outer garment edge

4. If a seam is not serged, it is best to finish the edges before sewing the seam.
   A.* True
   B. False

5. Seam allowances are the same on all patterns.
   A. True
   B.* False

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EVALUATION/TEST QUESTIONS

SLEEVES, PLACKETS, AND CUFFS

1. The most common type of sleeve is the:
   A. Raglan
   B.* Set-in
   C. Kimono
   D. All of the above

2. A set-in sleeve can be sewn in either before or after the side seam.
   A.* True
   B. False

3. Describe how a continuous sleeve placket is made.
   - an extra piece of fabric is sewn along the slash

4. Describe how a rolled hem sleeve placket is made.
   - a small piece of seam allowance is rolled up and hemmed in place

5. What is the main advantage of a continuous sleeve placket over a rolled hem sleeve placket?
   - gives more room
   - allows wearer to roll up sleeve more easily

6. A shirt sleeve placket is the same as a continuous sleeve placket.
   A. True
   B.* False

7. A slash placket is made by:
   A. Cutting a slash and turning it under
   B. Cutting a slash and finishing the edge
   C.* Sewing a facing piece to the fabric before cutting

8. Cuffs are basically applied the same method as:
   A.* Waistbands
   B. Collars
   C. Pockets

9. The front of the cuff should always overlap the back.
   A.* True
   B. False

10. The buttonhole should be placed on the back part of the cuff.
    A. True
    B.* False

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EVALUATION/TEST QUESTIONS

SPECIALTY FABRICS

1. Tricot is sewn just like any other piece of fabric.
   A. True
   B.* False

2. There is no right or wrong side to tricot; both sides are the same.
   A. True
   B.* False

3. Pattern pieces do not need to be placed on the grain when using tricot.
   A. True
   B.* False

4. The correct size of sewing machine needle to use for tricot is:
   A. 60
   B.* 70
   C. 90
   D. 100

5. The best kind of thread to use when sewing outdoor gear and wear is:
   A. Cotton
   B. Rayon
   C.* Nylon
   D. Silk

6. When sewing on heavy fabrics, the correct size of sewing machine needle is:
   A. 60
   B. 70
   C. 90
   D.* 100

7. The two (2) main types of plaids are:
   - even (balanced) - uneven (unbalanced)

8. How can you tell if a plaid is balanced or unbalanced?
   - if the plaid repeats itself in either direction from a dominant bar, it is even or balanced
   - if the plaid does not repeat itself in either direction from a dominant bar, it is uneven or unbalanced

9. How much extra yardage should you buy for a small to average size plaid?
   - 1/4 to 1/2 yard A large plaid? - 1/2 to 1 yard

10. If a plaid is printed on the fabric, rather than being woven, you must check to be sure it is printed _on grain__.

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EVALUATION/TEST QUESTIONS

SPEED TAILORING

1. This type of buttonhole has a small piece of fabric inserted on each side.
   - bound

2. Lining a garment adds more body and durability to the outer garment and provides for a more attractive inside finish.
   A.* True
   B. False

3. A lining:
   A.* Hangs separately from the garment
   B. Is stitched directly to each garment piece

4. An underlining:
   A. Hangs separately from the garment
   B.* Is stitched directly to each garment piece

5. Lining fabric should be:
   A. Heavier than the garment fabric
   B.* Lighter than the garment fabric
   C. It doesn't matter

6. Lining fabric should require the same care as the garment fabric.
   A.* True
   B. False

7. Tailor's tacks are primarily used to:
   A. Tack a quilt on a quilt frame
   B.* Mark construction symbols temporarily
   C. Attach the interfacing to the facing

8. A __________ thread is used when making tailor's tacks.
   A. Triple
   B. Single
   C.* Double

9. The main reason for using bound buttonholes in a garment is to give it a professional look.
   A.* True
   B. False

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EVALUATION/TEST QUESTIONS

WAISTBANDS AND WAIST SEAMS

1. A piece of fabric sewn to the garment that is a carrier for elastic is called a:
   - casing

2. All waistbands are applied exactly the same.
   A. True
   B.* False

3. Waistbands should be interfaced.
   A.* True
   B. False

4. Casings should be interfaced.
   A. True
   B.* False

5. Casings can be used on the outside or the inside.
   A.* True
   B. False

6. To eliminate bulk, elastic can be enclosed in the waistline seam allowance.
   A.* True
   B. False

7. The waistband extension for fasteners should be:
   A. On the outside
   B.* On the underside

8. On men's clothing:
   A.* The left side of the waistband should lap over the right
   B. The right side of the waistband should lap over the left

9. On women's clothing:
   A. The left side of the waistband should lap over the right
   B.* The right side of the waistband should lap over the left

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EVALUATION/TEST QUESTIONS

ZIPPERS

1. An extension adds strength and forms a wide lap over the zipper when it is sewn into the opening in a:
   A. Centered zipper application
   B. Lapped zipper application
   C.* Fly-front application
   D. Separating zipper application

2. In a mock fly-front lapped application, the extension piece is:
   A. Sewn on separately
   B. Another kind of fabric
   C.* An integral part of the front pattern piece

3. Mock fly-front zippers are mostly used in:
   A.* Women's pants
   B. Men's pants
   C. Both women's and men's pants

4. Invisible zippers are used to retain the look of a plain seam in a garment.
   A.* True
   B. False

5. When is the invisible zipper inserted?
   A. After the seam is sewn together
   B.* Before the seam is sewn together
   C. Can be sewn either before or after

6. The regular zipper foot can be used for inserting an invisible zipper.
   A. True
   B.* False

Name ______________________ Period _______ Date _______________

HEMMING STITCHES

1. No matter what hem you choose, it must ___________ _____________.
2. What are the first steps to hemming a garment?

   ____________________ ____________________

   ____________________ ____________________
3. Why should you try on the garment before hemming it?

   ____
4. What is a good guideline for the length of men's pants?

   ____
5. What are the best guidelines for determining the lengths of women's clothes?

   ____________________ ____________________
6. The necessary tools for measuring and marking a hem are:

   ____
7. Hemlines should be marked while the garment in on the individual who is to wear it. T F
8. Why should the edge of the hem be finished before hemming?

   ____
9. Name four (4) hand hemming styles (stitches).

   1. ____________________ 2. ____________________

   3. ____________________ 4. ____________________
10. Name four (4) machine hemming styles (stitches).

   1. ____________________ 2. ____________________

   3. ____________________ 4. ____________________
11. What things should be considered when deciding which hem style (stitch) to use?

   1. ____________________ 2. ____________________

   3. ____________________ 4. ____________________
12. What are the advantages of stitching a hem by machine?

   ____
13. What are the advantages of stitching a hem by hand?

   ____

Name ____________________ Period ________ Date ______________

HOW TO ALTER A PATTERN

1. What part of your body contour do you find hardest to fit when buying clothing?

____

2. How does fit affect the styles of clothing you choose and wear?

____

3. Are there any styles you would wear if they would fit you comfortably? __________
If your answer is yes, list some of them.

____________________ ____________________

____________________ ____________________

4. What type of clothing is most difficult to find both in your size and that fits your body contour?

____

5. What measurements do you need to know before purchasing a pattern?

____

6. What are the guidelines for choosing the correct size pattern if you were making a shirt or a blouse?

____

7. Explain why the amount of fabric required could be affected if your measurements are very different from those on the pattern envelope.

____

8. Describe how to lengthen or shorten a pattern, using diagrams.

9. Describe how to take in (narrow) or let out (widen) a pattern, using diagrams.

Name ________________________ Period ______ Date ________________

HOW TO DO POCKETS

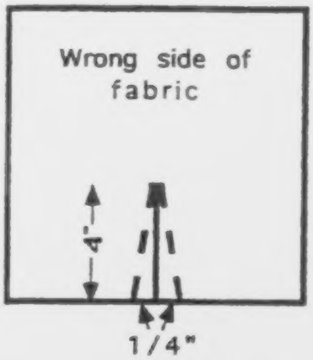
1. What are the two (2) basic kinds of pockets?
   1. ________________________ 2. ________________________
2. Why are pockets so important?
   ____
3. List four (4) good pointers of a good pocket.
   1. ________________________ 2. ________________________
   3. ________________________ 4. ________________________
4. What are some guidelines to remember when positioning pockets:
   Below the waist ____
   ____
   Above the waist ____
   ____
5. Name three (3) basic types of patch pockets.
   1. ________________ 2. ________________ 3. ________________
6. Before sewing a pocket, what two (2) areas should be marked?
   1. ________________________ 2. ________________________
7. Describe and/or diagram the ten (10) basic steps in pocket construction.
   1. 2.
   3. 4.
   5. 6.
   7. 8.
   9. 10.
8. When constructing a curved pocket, what three (3) different techniques can be used to ensure a nice, rounded edge? 1. ________________________
   2. ________________________ 3. ________________________

Name ______________________ Period ______ Date ______________

SLASH PLACKETS

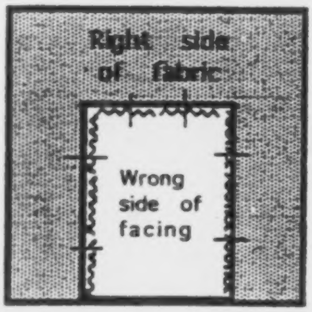
1. Draw a 4-inch straight line (vertical) on the wrong side of the fabric where you wish to have an opening. Mark like a dart, with 1/4 inch on each side of the line.

2. Reinforce by stitching along the outside lines, using a very short stitch and putting one stitch across the pointed end. (This stitching is done on the garment piece only.)



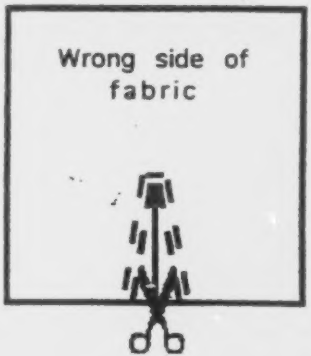
3. Cut a 3-inch by 6-inch facing piece, making sure it is on the grainline. Overcast the two long sides and one short side of the facing.

4. Place the facing against the garment piece, right sides together. Pin in place on the outer sections of the facing.



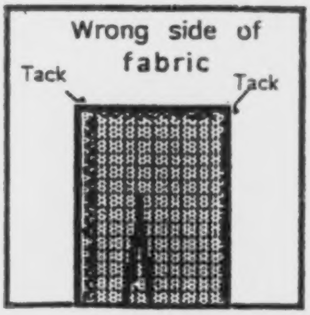
5. Sew the right sides together, stitching along the reinforcement stitch line, using a regular size stitch. Backstitch at the beginning and the end.

6. Slash (cut) along the straight line to the very point, without going through the point.



7. Press seams flat towards facing and understitch. (Stitch seam to facing right along facing edge.)

8. Turn facing to wrong side and press in place. Stitch along the bottom seamline to hold facing in place; tack opposite corners in place.



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Name ______________________ Period _______ Date ________________

ALL ABOUT PLAIDS

1. There are two (2) main types of plaids: ______________ and ___________.
2. How can you tell if a plaid is balanced or unbalanced?

   ____

   ____

3. Why do you need to purchase more fabric when buying plaids?

   ____

4. How much extra yardage should you buy for a small to average size plaid?

   ____

   How much extra yardage should you buy for a large plaid?

   ____

5. If a plaid is printed on the fabric, rather than being woven, you must check to be sure it is printed ___ _________.
6. Explain the difference between a woven and a printed plaid.

   ____

7. How do you pin the fabric together to lay out a pattern on an even plaid?

   ____

8. Diagram an even or balanced plaid or attach a fabric sample of one here.

9. If a plaid is printed off grain, follow the ______________ rather than the ________________ for positioning pattern pieces.

10. Explain how to begin laying out the pattern pieces on a piece of plaid fabric. Your pattern guide will not give you a diagram for plaids.

    ____

    ____

11. It is best to choose patterns with ____________ lines when working with plaids.

ALL ABOUT PLAIDS - PAGE 2

12. T F The pattern envelope will tell you if the pattern isn't suited for a plaid.

13. T F Woven plaids can be off grain, too.

14. T F Even plaids are easier to match than uneven plaids.

15. Name five (5) important places where plaids must be matched.

1. ______________________ 2. ______________________
3. ______________________ 4. ______________________
5. ______________________

16. Why must pattern fitting adjustments be made before laying out and cutting?

____

17. Give two tips on where the plaid design should be placed on the garment.

1. ____
2. ____

18. What places will the plaids probably NOT match?

1. ______________________ 2. ______________________
3. ______________________

19. A "without nap" layout can be used for ____________ plaids unless it has a brushed or napped surface.

20. How is a chevron formed? Diagram a chevron in a skirt.

____
____

21. Uneven plaids can go around the body contour in two ways. Name them.

1. ____
2. ____

22. ____________ plaids must be cut out of a single layer of fabric while
____________ plaids can be cut out of a double layer of fabric.

23. Explain how to layout pattern pieces on an uneven plaid.

____
____
____

Name ______________________ Period ________ Date ______________

ALL ABOUT PLAIDS - TEACHER KEY

1. There are two (2) main types of plaids: EVEN (BALANCED) AND UNEVEN (UNBALANCED)
2. How can you tell if a plaid is balanced or unbalanced?
   FIND THE CENTER OF A MAIN LENGTHWISE BAR AND SEE IF PLAID REPEATS EVENLY ON EACH SIDE OF THE BAR.
3. Why do you need to purchase more fabric when buying plaids?
   TO ALLOW FOR MATCHING THE PLAIDS - SOME YARDAGE MAY BE LOST
4. How much extra yardage should you buy for a small to average size plaid?
   1/4 TO 1/2 YARD
   How much extra yardage should you buy for a large plaid?
   1/2 TO 1 YARD
5. If a plaid is printed on the fabric, rather than being woven, you must check to be sure it is printed ON GRAIN.
6. Explain the difference between a woven and a printed plaid.
   WOVEN=PLAID IS FORMED BY THREADS OF FABRIC PRINTED=ON TOP
7. How do you pin the fabric together to lay out a pattern on an even plaid?
   FOLD FABRIC AND MATCH MAIN BARS ON TOP AND BOTTOM
8. Diagram an even or balanced plaid or attach a fabric sample of one here.
9. If a plaid is printed off grain, follow the PLAID LINE rather than the GRAINLINE for positioning pattern pieces. (CAUTION! NEW PROBLEMS!)
10. Explain how to begin laying out the pattern pieces on a piece of plaid fabric. Your pattern guide will not give you a diagram for plaids.
    BEGIN WITH LARGE PIECES FIRST=FRONT, BACK, SLEEVES
    USE PLAID LINE FOR GRAINLINE: MATCH PLAIDS AS YOU GO
11. It is best to choose patterns with SIMPLE lines when working with plaids.

ALL ABOUT PLAIDS - PAGE 2

12. T F The pattern envelope will tell you if the pattern isn't suited for a plaid.

13. T F Woven plaids can be off grain, too.

14. T F Even plaids are easier to match than uneven plaids.

15. Name five (5) important places where plaids must be matched.

    1. CROSSWISE BARS AT CENTER FRONT AND BACK
    2. CENTER BACK OF COLLAR AND YOKE TO CENTER BACK
    3. SIDE SEAMS 4. POCKET FLAPS
    5. SLEEVE TO BODICE FRONT

16. Why must pattern fitting adjustments be made before laying out and cutting?

    SEAMS MAY NOT MATCH WHEN PIECE SIZES/SHAPES ARE CHANGED

17. Give two tips on where the plaid design should be placed on the garment.

    1. PROMINENT VERTICAL BARS AT CENTER FRONT, CENTER BACK
    2. HORIZONTAL BARS AT BOTTOM OR HEMLINES

18. What places will the plaids probably NOT match?

    1. SHOULDER SEAMS 2. DARTED SIDE SEAMS
    3. BACK ARMHOLE SEAM

19. A "without nap" layout can be used for EVEN/BALANCED plaids unless it has a brushed or napped surface.

20. How is a chevron formed? Diagram a chevron in a skirt.

    WHEN PLAIDS ARE MATCHED AT AN ANGLE; PLAID LINES MUST BE
    ON THE SAME SLANT

21. Uneven plaids can go around the body contour in two ways. Name them.

    1. OPPOSITE DIRECTIONS FROM CENTER (MIRROR IMAGE)
    2. MOVE IN SAME DIRECTION AROUND BODY

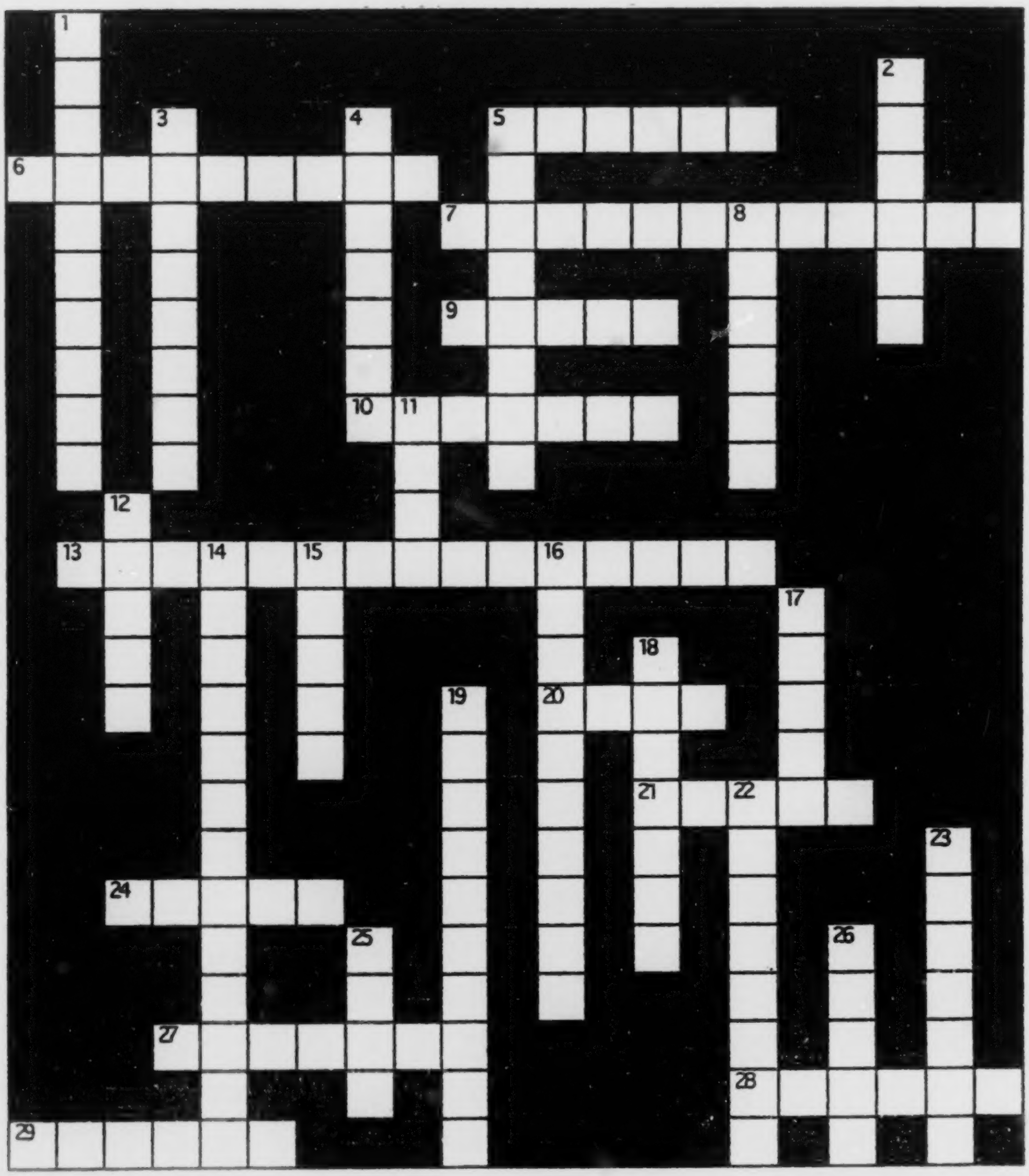
22. UNEVEN plaids must be cut out of a single layer of fabric while EVEN plaids can be cut out of a double layer of fabric.

23. Explain how to layout pattern pieces on an uneven plaid.

    USE MIRROR IMAGE EFFECT FROM CENTER FRONT AND CENTER BACK
    CUT ON SINGLE LAYER OF FABRIC; REVERSE PATTERN FOR SECOND PIECE
    FOLD FABRIC ON MAIN BAR FOR PIECES ON THE FOLD

Name ______________________________ Period _______ Date __________________

CONSTRUCTION CONFETTI
CROSSWORD PUZZLE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CONSTRUCTION CONFETTI - PAGE 2
CROSSWORD PUZZLE

ACROSS

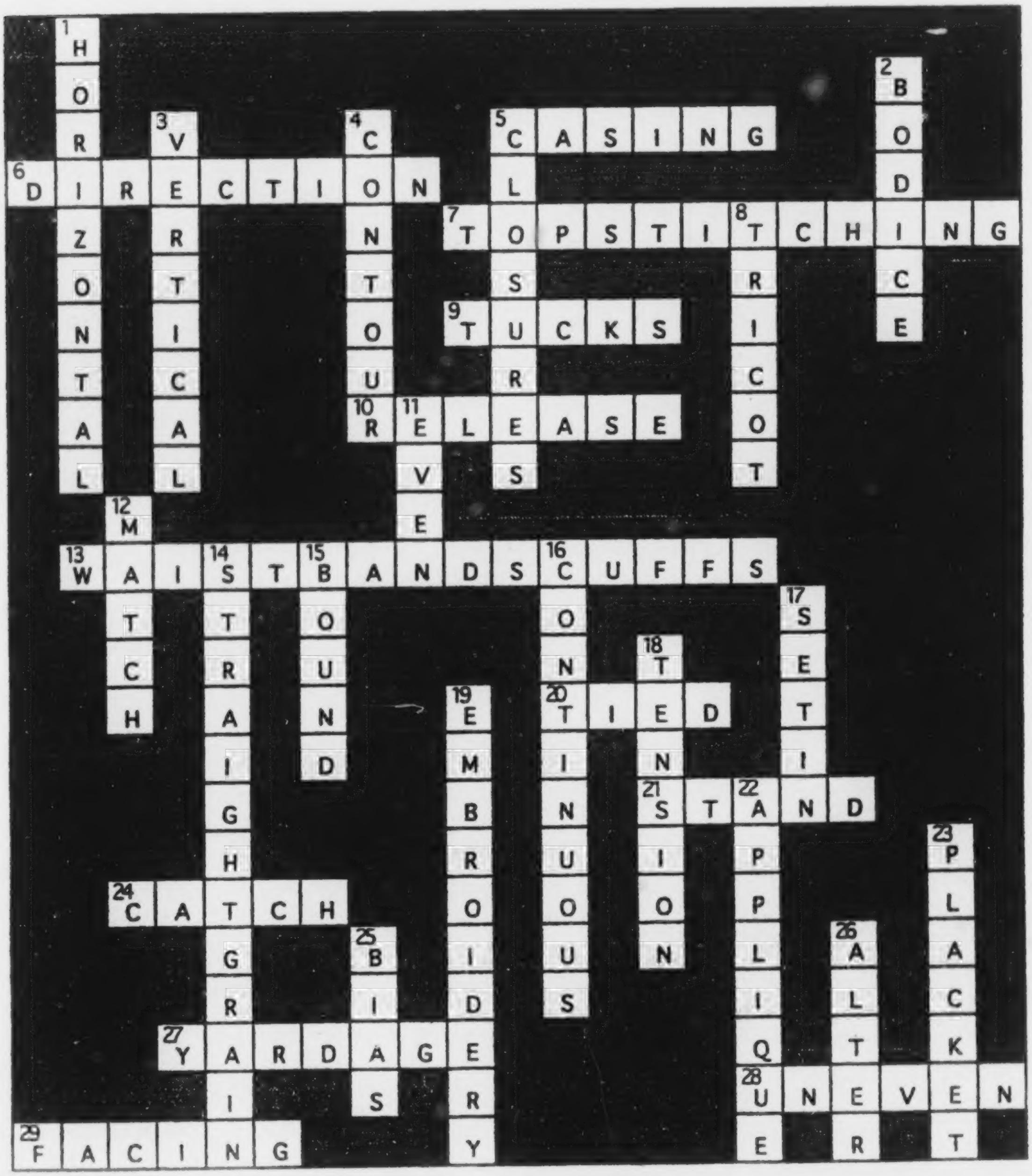
5. A piece of fabric sewn to the garment that is a carrier for elastic.
6. Corduroy and velveteen have a nap, so the main pattern pieces must be cut in the same ______________.
7. Machine stitching used on the outside of a garment is called ______________.
9. A technique for adding shape; similar to a dart.
10. This kind of tuck is not stitched down.
13. The method of application is basically the same for these two pieces. (two words)
20. The threads at the point of a dart should be ___________ to keep them secure.
21. Collars for shirts have an extra piece of fabric placed between the collar and the bodice. It is called the ___________.
24. Hems which are almost invisible are done so they ________ only one thread of the front fabric at a time.
27. The amount of ______________ required for a project increases when the fabric is plaid, has a one-way design, or a napped surface.
28. This kind of plaid requires the most yardage and is the most difficult to work with.
29. A _________ on the inside edge of a garment adds body and gives a finished appearance.

DOWN

1. The dominant _______________ bar of a plaid should be placed at the hemline of the garment.
2. The part of a garment that covers the upper torso is frequently called the _____.
3. The dominant _______________ bar of a plaid should be placed in the center of each side of the front and in the center of the back.
4. Another name for a double dart; may also be on a curve.
5. _____________, such as zippers, hooks and eyes, and buttons and buttonholes, need to be smooth and strong.
8. This fabric is generally used for sewing lingerie.
11. This kind of plaid is the easiest to work with and requires less yardage.
12. It is important to check plaids, stripes, and other prints to make sure they _______ at the seams before cutting.
15. This type of buttonhole has a small piece of fabric inserted on each side.
16. This type of placket is most commonly used on sleeves. A strip of fabric is applied to the opening.
17. This kind of sleeve is almost always used in shirts.
18. If the seam stitching is not smooth on both sides of the fabric, one should check the threading, needle placement, and the ____________.
19. This type of fabric decoration or adornment can be done by hand or machine.
22. When a design cut from one piece of fabric is sewn on the top of another piece of fabric, it is called _____________.
23. A visible, overlapping piece of fabric sewn in a garment opening.
25. Fabric that is cut across the grain at a 45 degree angle.
26. To change the pattern so it fits better.

Name ______________________ Period ________ Date ________________

CONSTRUCTION CONFETTI
CROSSWORD PUZZLE


1 HORIZONTAL
2 BODICE
3 VERTICAL
4 CONTOUR
5 CASING
5 CLOSURES
6 DIRECTION
7 TOPSTITCHING
8 TRICOT
9 TUCKS
10 RELEASE
11 EVE
12 MATCH
13 WAISTBANDS
14 STRAIGHTGRAIN
15 BOUND
16 CUFFS
16 CONTINUOUS
17 SETIN
18 TENSION
19 EMBROIDERY
20 TIED
21 STAND
22 APPLIQUE
23 PLACKET
24 CATCH
25 BIAS
26 ALTER
27 YARDAGE
28 UNEVEN
29 FACING

DYNAMICS OF CLOTHING II

UNIT VI: *CAREER OPPORTUNITIES*

TOPIC A: TEXTILES AND APPAREL CAREERS

OBJECTIVE: The students will be able to evaluate a number of careers related to the textiles and apparel industry.

CONCEPT: By exploring a number of career options related to the textiles and apparel industry, the students will recognize how the skills they are learning in class are transferrable to an occupational field that will always be in demand.

COMPETENCIES:

1. Identify textiles and apparel related career opportunities.
2. Explore a specific textiles and apparel related career (e.g., retail sales, alterations, repairs, instruction, production, design, communication, textiles manufacture, etc.).
3. Evaluate the advantages and disadvantages of various career opportunities related to textiles and apparel.

OPTIONS/ACTIVITIES	SUPPLIES NEEDED
1. Career Scramble	Scrambled career letters Copies of student activity guide (II-VI-9) Overhead transparency (II-VI-11)
2. Career Mobile	Mobile structure (pant hangers or regular hangers and clothespins) Career posters (II-VI-12 through II-VI-31)
3. Careers in Clothing Video	Video from Nasco Video player
4. Textiles/Apparel Guest Panel	Questions for panel
5. Textiles/Apparel Careers Field Trip	None
6. Textiles/Apparel Interview	Copies of student activity guide (II-VI-32)
7. Textiles/Apparel Career Research	Copies of student activity guide (II-VI-33) Copies of Occupational Outlook Handbook Set of Vocational Counseling Guides Optional: Computers/Software
8. Birth of a Pattern Filmstrip	Filmstrip from McCalls Projector
9. Careers in Color and Style Filmstrip	Filmstrip/Projector
10. Careers in Fashion Video	Video from Fairchild Video player

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OPTIONS/ACTIVITIES

1. **Career Scramble**
   To begin, give each student a set of scrambled letters and have him/her unscramble them to find a textiles/apparel related career. Upon completion, give each student a copy of the student activity guide, CAREER SCRAMBLE, to introduce a number of careers related to clothing and textiles. There is space for a brief description of each career, and the education background needed to get into that career field. Cover each career in enough detail so that the students will have a basic understanding of it. Use an overhead transparency of the Career Ladder to show the hierarchy of careers within the field. Others could be added to the ladder.

   Note: Many of these careers were introduced in the Technology-Life-Careers program when the students were in the 7th grade.

2. **Career Mobile**
   As the career titles are unscrambled, hang the career posters somewhere in the room—making a mobile as you go along. The teacher will need to have the parts for the mobile ready before the class begins. Patterns for career posters are in the resource section. The mobile could be made easily with pant hangers or regular hangers and clothespins.

3. **Careers in Clothing Video**
   Show the video, Careers in Clothing, from Nasco. Several careers are examined such as fashion coordinator, alterations expert, and fashion designer.

4. **Textiles/Apparel Guest Panel**
   Invite several people in your community who work in the clothing/textile industry to be guests on a panel. Try to have a variety of career types if possible, i.e., from general laborers/apparel sales clerks to floor managers/buyers/executives. The teacher should have the questions ready before the panel members arrive. The teacher may have the students write out their questions the previous day.

5. **Textiles/Apparel Careers Field Trip**
   If possible, take the students on a field trip to several types of places where clothing/textile careers are found. Some examples of places to visit are:
   - Fabric store
   - Alterations department of a large store
   - Drapery workroom
   - Cottage industry or boutique with fabric items
   - Apparel store
   - Dry cleaners
   - Custom tailoring shop
   - Apparel factory

   As you leave each place, discuss the advantages and disadvantages of each type of work.

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OPTIONS/ACTIVITIES

6. **Textiles/Apparel Interview**
Using the student activity guide provided, have each student arrange for an interview with someone who works in a textiles/apparel occupation that interests them. When the interviews are completed, take one class day for the students to share their information with other class members.

7. **Textiles/Apparel Career Research**
This activity could be combined with the previous one if desired. Have each student choose a textiles/apparel occupation that interests them and do some research on that career choice. The teacher can work with the career counselors in the school to use the Occupational Outlook Handbook that is compiled by the U.S. Department of Labor and is probably the most inclusive of information. Some career centers have information on computer software the students can use. In Utah, every career center has a set of Vocational Counseling Guides that include information on a number of textiles/apparel related careers. Some guidelines for the type of information to look for are listed on the student activity guide. Again, have the students share their findings with other class members.

8. **Birth of a Pattern Filmstrip**
Show the filmstrip, Birth of a Pattern, from McCalls. This filmstrip covers many of the different careers involved in the making of patterns.

9. **Careers in Color and Style Filmstrip**
Show the filmstrip, Careers in Color and Style. This filmstrip depicts a number of careers related to the color and style industry.

10. **Careers in Fashion Video**
Show the video, Careers in Fashion, from Fairchild. As indicated by the title, this video depicts a number of careers related to the fashion industry.

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RESOURCES

Videos
Careers in Clothing, Nasco, P.O. Box 901, Fort Atkinson, WI 53538-0901, 1-800-558-9595, Catalog No. WA13147H.

Careers in Fashion, Fairchild Books and Visuals, 7 West 34th Street, New York, NY 10001, 1-800-247-6622. Catalog No. 783-9.

Filmstrips
Birth of a Pattern, McCall's Pattern Company, 11 Penn Plaza, New York, NY 10001, 212-465-6824.

Careers in Color and Style - Source not available.

Books
Occupatonal Outlook Handbook, U.S.Department of Labor.

Teaching Aids
Vocational Counseling Guides, Utah State Office of Education, 1990.

Clothing and Textiles Bulletin Boards, Schoolboards, Etc., P.O. Box 9106, Ogden, UT 84409, 1-800-93BOARD, Catalog Nos. HE 110 and HE 124. $29.95 each.

Career Posters, Set of 20 (11 x 17), Schoolboards, Etc., P.O. Box 9106, Ogden, UT 84409, 1-800-93BOARD. $20 per set.

Scrambled Career Letters, Schoolboards, Etc., P.O. Box 9106, Ogden, UT 84409, 1-800-93BOARD. $39.95 per set.

Software
CHOICES. (Most schools in Utah already have this in their career centers.)

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EVALUATION/TEST QUESTIONS

1. Identify textiles and apparel related career opportunities.

1. Match the following careers with the descriptions by writing the number of the title on the line next to the description. On the line before the career title, write **HS** if high school education is required, **HS+** if apprenticeship is required, **PHS** if post-high school training is required, and **CD** if a college degree is required.

_HS+	1. Alterationist	_11_	Counsels on coordination and choice
_HS+	2. Costume Designer	_14_	Gives advice on clothing/textile care
_HS+	3. Custom Sewer	__6_	Assists dry cleaner
_HS_	4. Custom Sewer's Assistant	__7_	Teaches about clothing and textiles
_HS+	5. Dry Cleaner	_20_	Studies fabric qualities and changes
_HS_	6. Dry Cleaner's Assist.	__1_	Alters ready-made garments to fit
_CD_	7. Extension Specialist	9/17	Assists customers with purchases
_PHS	8. Fabric Designer	_15_	Promotes sales of merchandise
_HS_	9. Fabric Store Associate	_16_	Makes the patterns for new designs
_CD_	10. Family and Consumer Sciences Teacher	_18_	Supervises sales and assistants
_PHS	11. Fashion Buyer	__3_	Makes patterns into garment
_PHS	12. Fashion Consultant	__5_	Cleans clothing/presses/repairs
_CD_	13. Fashion Designer	__4_	Assists custom clothing maker
_PHS	14. Laundry Technician	__2_	Designs clothes for stage, TV, etc.
_CD_	15. Merchandiser	_19_	Operates equip. to cut/sew/press/trim
_PHS	16. Patternmaker	_13_	Designs new clothing styles
_HS_	17. Retail Clothing Associate	_10_	Teaches textiles/apparel in schools
_PHS	18. Retail Clothing Supervisor	__8_	Designs fabric patterns and weaves
_HS_	19. Sewing Equipment Operator	_12_	Selects merchandise for store to sell
_CD_	20. Textile Researcher	9/17	Assists customers with selections

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EVALUATION/TEST QUESTIONS

2. **Explore a specific textiles and apparel related career (e.g., retail sales, alterations, repairs, instruction, production, design, communication, textiles manufacture, etc.).**

    1. What textiles and apparel related career did you learn about?
       - Answers will vary
    2. What are the advantages of this career?
       - Answers will vary
    3. What are the disadvantages of this career?
       - Answers will vary
    4. How much education and/or apprenticeship is required for this career?
       - Answers will vary
    5. What particular skills would be advantageous to have in this career?
       - Answers will vary
    6. What would you do specifically on this job?
       - Answers will vary
    7. What is the salary range for this career?
       - Answers will vary
    8. Are there employment opportunities for this career in this geographical area?
       - Answers will vary

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EVALUATION/TEST QUESTIONS

3. Evaluate the advantages and disadvantages of various career opportunities related to textiles and apparel.

1. What are the advantages of the career opportunities that require more education/apprenticeship over those with a high school degree?
   - increased salary, increased responsibilities, more challenging, probably more exciting (not so routine)

2. Some career opportunities related to textiles and apparel are quite limited in the number of persons employed. List five (5) of these:
   - fashion designer, patternmaker, model, textile researcher, costume designer, fabric designer

3. The highest number of jobs available are those that require:
   A.* A high school education
   B. A high school education plus apprenticeship
   C. Post-high school training
   D. A college degree

4. Textiles and apparel related careers are always in demand because:
   - everyone wears clothes and uses textile products in the home

Name ______________ Period ______ Date ______

CAREER SCRAMBLE

Directions: After you have unscrambled the letters for a textiles/apparel related career, record the careers in the first column. Fill in any remaining information you know about the career and then complete the information as it is provided by the teacher.

	TEXTILES/APPAREL CAREERS	BRIEF DESCRIPTION	EDUCATIONAL REQUIREMENTS
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			

Name ______ Period ______ Date ______

CAREER SCRAMBLE - TEACHER KEY

Directions: After you have unscrambled the letters for a textiles/apparel related career, record the careers in the first column. Fill in any remaining information you know about the career and then complete the information as it is provided by the teacher.

	TEXTILES/APPAREL CAREERS	BRIEF DESCRIPTION	EDUCATIONAL REQUIREMENTS
1.	Alterationist	Alters ready-made garments to fit	High school/apprenticeship
2.	Costume Designer	Designs clothes for stage, TV, etc	High school/apprenticeship
3.	Custom Sewer	Makes patterns into garments	High school/apprenticeship
4.	Custom Sewer's Assistant	Assists custom clothing maker	High school
5.	Dry Cleaner	Cleans clothing/presses/repairs	High school/apprenticeship
6.	Dry Cleaner's Asst.	Assists dry cleaner	High school
7.	Extension Specialist	Teaches about clothing/textiles	College degree
8.	Fabric Designer	Designs fabric patterns/weaves	Post-high school training
9.	Fabric Store Assistant	Assists customers with purchases	High school
10.	Family/Cons.Sciences Teacher	Teaches clothing/textiles in schools	College degree
11.	Fashion Buyer	Selects merchandise for store to sell	Post-high school training
12.	Fashion Consultant	Counsels on coordination/choices	Post-high school training
13.	Fashion Designer	Designs new clothing styles	College degree
14.	Laundry Technician	Gives advice on clothing/textile care	Post-high school training
15.	Merchandiser	Promotes sale of merchandise	College degree
16.	Patternmaker	Makes the patterns for new designs	Post-high school training
17.	Retail Clothing Assistant	Assists customers with purchases	High school
18.	Retail Clothing Supervisor	Supervises sales and assistants	Post-high school training
19.	Sewing Equipment Operator	Operates equip.to cut/sew/press/trim	High school
20.	Textile Researcher	Studies fabric qualities/changes	College degree

TEXTILES AND APPAREL CAREER LADDER

ENTRY

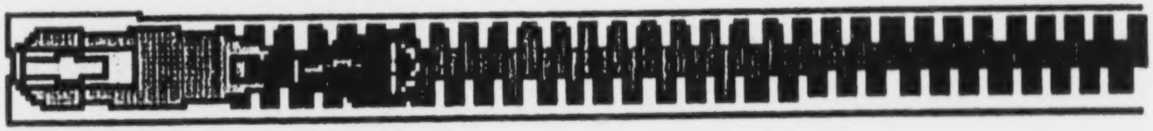
- CUSTOM SEWER'S ASSISTANT
- DRY CLEANER'S ASST.
- FABRIC STORE ASST.
- RETAIL CLOTHING ASSISTANT
- SEWING EQUIPMENT OPERATOR

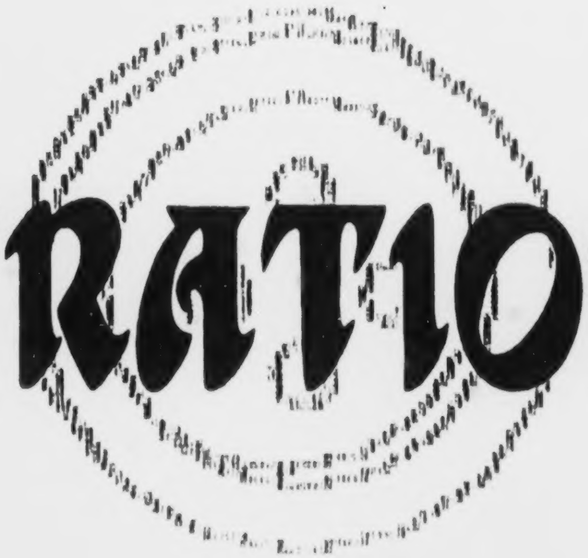
INTERMEDIATE

- ALTERATIONIST
- COSTUME DESIGNER
- CUSTOM SEWER
- DRY CLEANER
- FABRIC DESIGNER
- FASHION CONSULTANT
- FASHION BUYER
- LAUNDRY TECHNICIAN
- PATTERNMAKER
- RETAIL CLOTHING SUPERVISOR

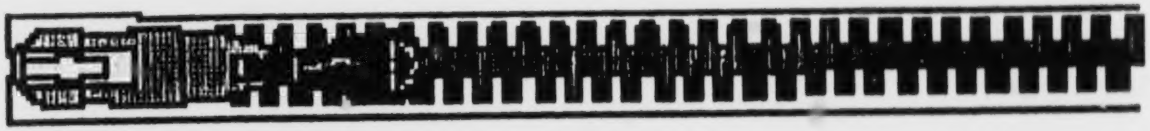
ADVANCED

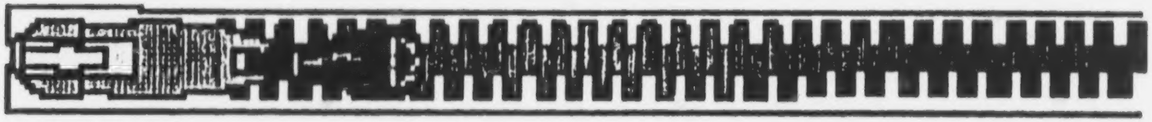
- EXTENSION SPECIALIST
- FAMILY AND CONSUMER SCIENCES TEACHER
- FASHION DESIGNER
- MERCHANDISER
- TEXTILE RESEARCHER





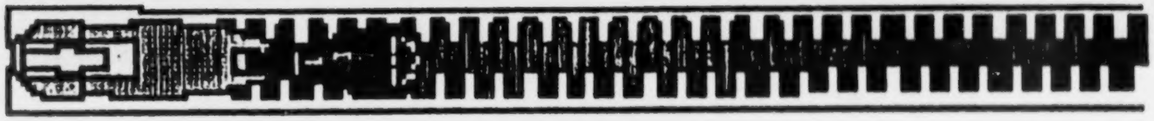
ALTERATIONIST



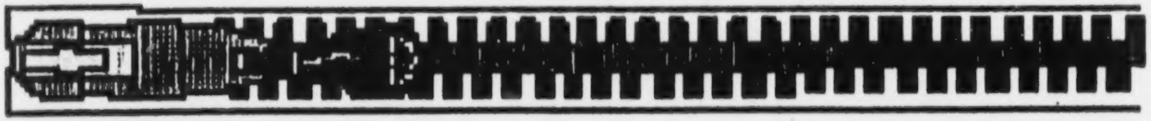


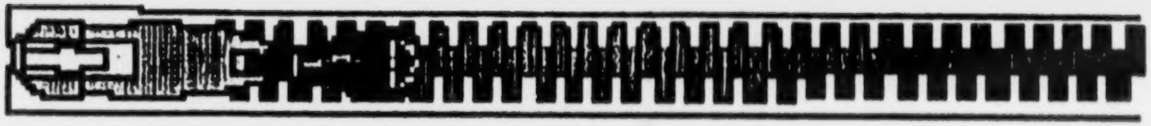
COSTUME DESIGNER

CUSTOM
SEWER

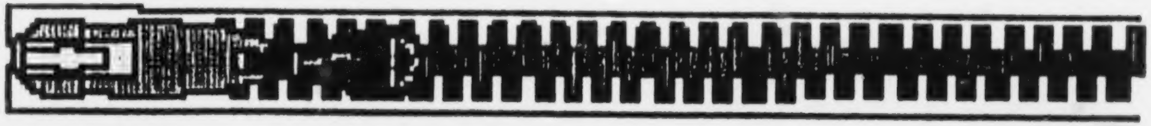


CUSTOM SEWER'S ASSISTANT

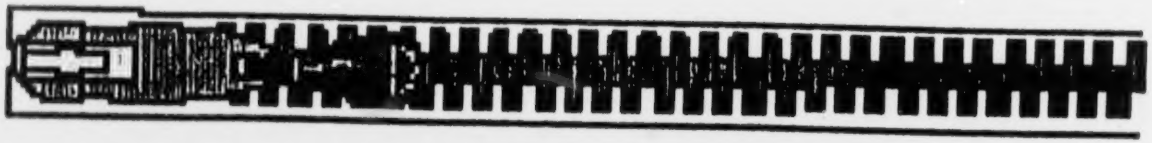


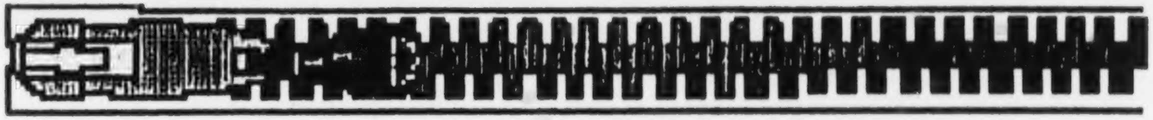


DRY CLEANER'S ASSISTANT

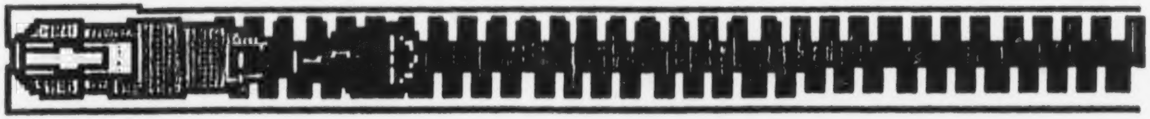


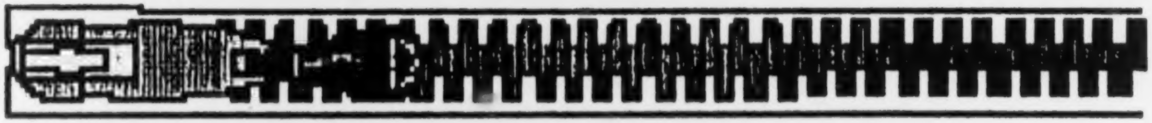
DRY CLEANER



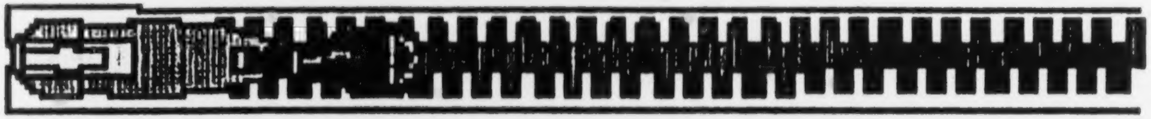


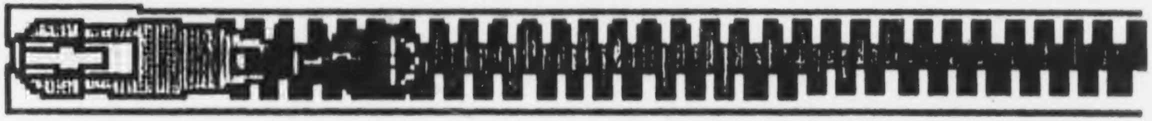
EXTENSION SPECIALIST



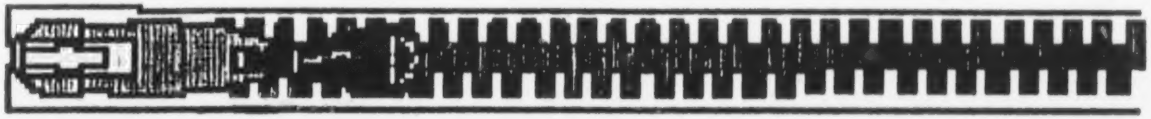


FABRIC DESIGNER



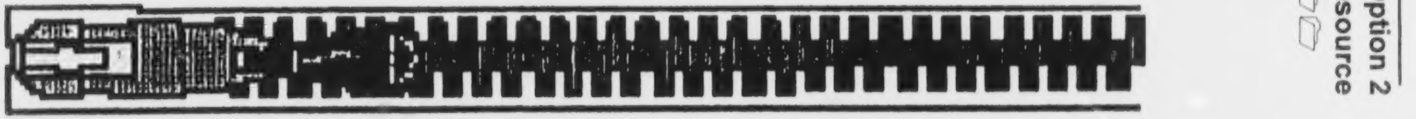


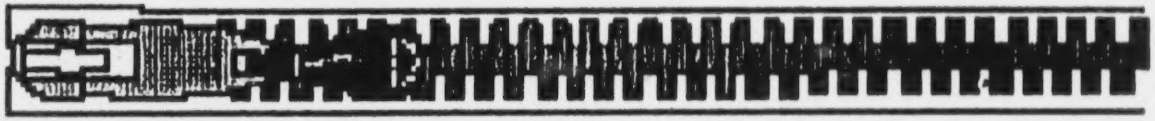
FABRIC STORE ASSOCIATE



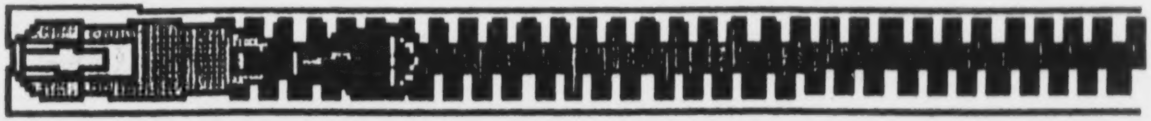
FACS
Teacher

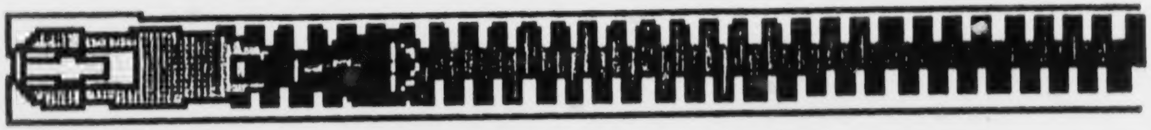
FASHION BUYER



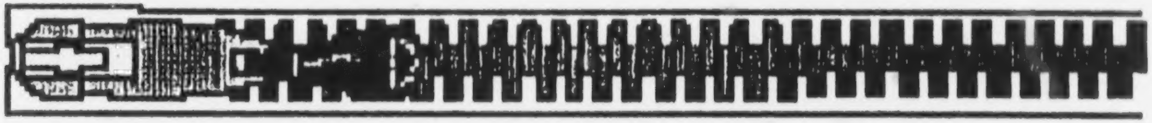


FASHION CONSULTANT

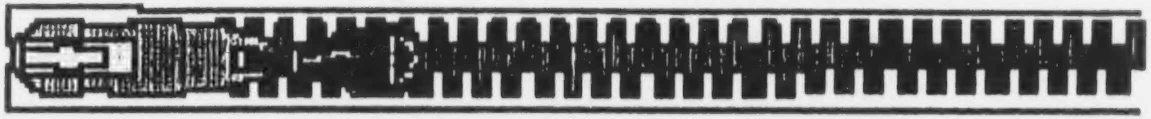


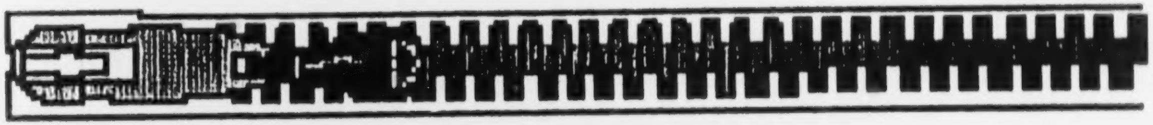


FASHION DESIGNER

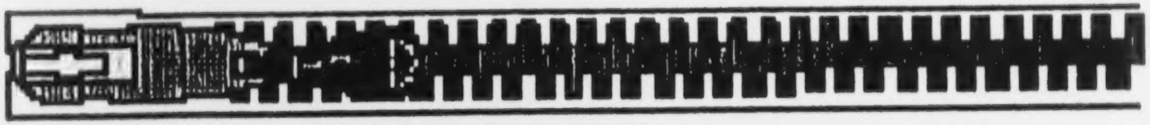


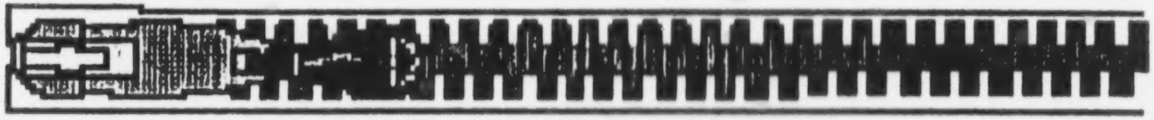
LAUNDRY TECHNICIAN



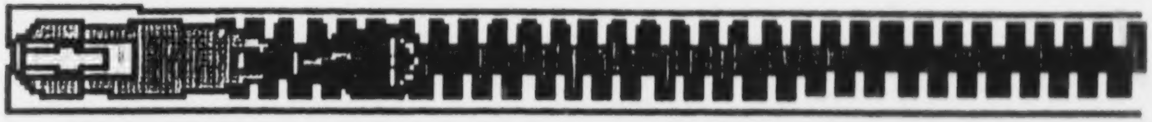


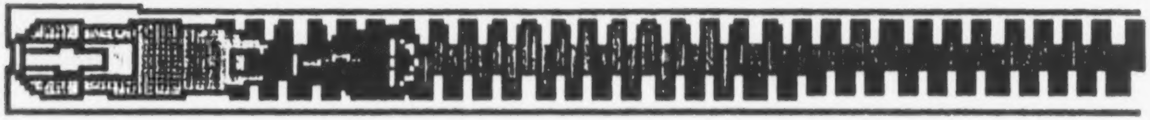
MERCHANDISER



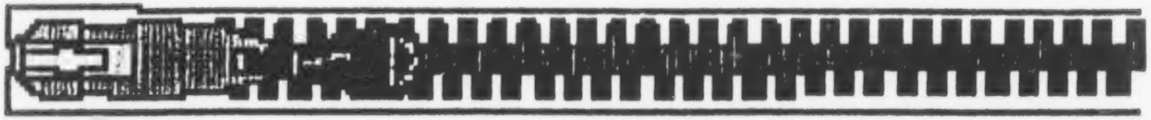


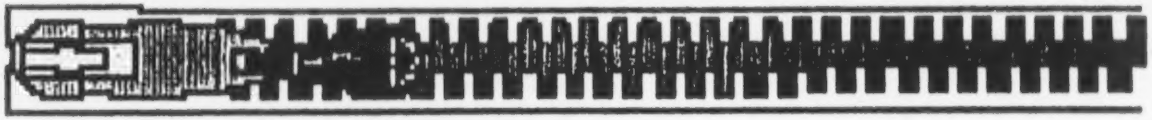
PATTERNMAKER



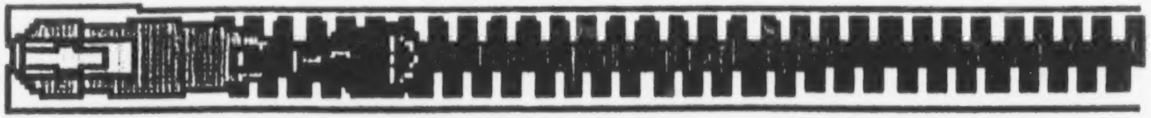


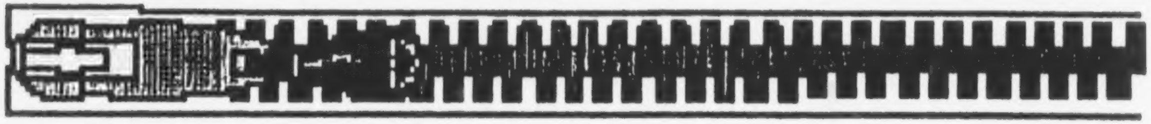
RETAIL CLOTHING ASSOCIATE



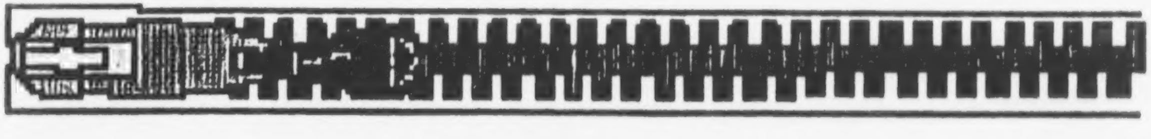


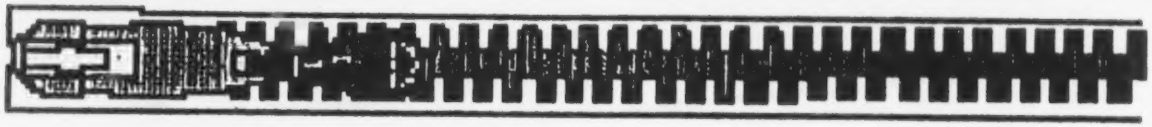
RETAIL CLOTHING SUPERVISOR



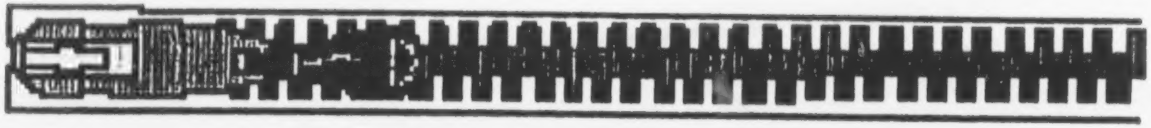


SEWING EQUIPMENT OPERATOR





TEXTILE RESEARCHER



Name ______________________________ Period __________ Date ________________

TEXTILES AND APPAREL CAREER INTERVIEW

Directions: Select a textiles and apparel occupation that interests you. Arrange for an interview with a person who is employed in that job. The following are suggested questions for you to ask.

Name of person interviewed: ____

Where are they employed? ____

1. What is your job title?
2. What are your job responsibilities?
3. What type of training or apprenticeship is necessary for your job?
4. What personal qualifications and/or skills are necessary for your job?
5. How much education is necessary for this occupation?
6. What are the advantages of this occupation?
7. What are the disadvantages of this occupation?
8. What are the working conditions like in this occupation?
9. What opportunities are there in this city and in the surrounding area for this job?
10. What is the approximate starting salary? Are there any other benefits?
11. Do you have regular opportunity for salary increases and/or promotions?
12. What advice would you give a person considering this career?
13. How many years have you been in this occupation?
14. What attracted you to this occupation?
15. Other: ____

Comments:

Name ______________________ **Period** _______ **Date** ____________

TEXTILES AND APPAREL CAREER RESEARCH

1. Job Title: ____

2. D.O.T. Number: ____

3. What are the tasks performed in this occupation?

4. What particular skills or aptitudes are necessary for this job?

5. Some career options for this occupation are:

6. What types of agencies or businesses hire people for this occupation?

7. What is the employment outlook for this occupation?

8. What are the typical working conditions on this job?

9. What are the physical and/or mental demands on this job?

10. Some related occupations are:

11. The educational requirements for this job are:

12. What courses can you take in high school to prepare for this job?

13. Where could you go in this state to receive post-high school training for this occupation?

14. Where could you go in this state to get a college degree in the textiles and apparel field of study?

DYNAMICS OF CLOTHING II

UNIT VI: *CAREER OPPORTUNITIES*

TOPIC B: **ENTREPRENEURSHIP OPPORTUNITIES**

OBJECTIVE: Students will be able to identify entrepreneurship opportunities related to the textiles and apparel field.

CONCEPT: There are many opportunities for entrepreneurship related to the textiles and apparel field. Frequently these can simply be a cottage industry whereby the homemaker can have a source of income and still be home with the children. The purpose of this unit is to explore these opportunities.

COMPETENCIES:

1. Identify entrepreneurship/home-based industry opportunities related to textiles and apparel.

2. Assess the advantages and disadvantages of entrepreneurship opportunities related to textiles and apparel.

3. Examine the characteristics, work ethics, and personal discipline required of successful entrepreneurs.

4. Recognize and use standard business terms.

5. Set up a home-based business (in theory or reality) related to textiles and apparel, based on the application of sewing skills for profit.

   OR

   Establish a group industry related to textiles and apparel, based on the application of sewing skills for profit.

	OPTIONS/ACTIVITIES	SUPPLIES NEEDED
1.	Opportunities Galore!	Large piece of butcher paper or newsprint Large markers
2.	The Good and the Bad of Entrepreneurship	Copies of student activity guide (II-VI-45)
3.	Entrepreneurial Guest Speaker	None
4.	Is Entrepreneurship For Me?	8½-inch by 11-inch pieces of colored cardstock or poster board Markers Hole punch and paper clips Copies of student activity guide (II-VI-46)
5.	Entrepreneurship Video	Video Video player
6.	Entrepreneurs	Classroom set of textbook, Clothing.
	OR	
	Sewing and Handcrafts for Fun and Profit	Classroom set of textbook, Clothes and Your Appearance
7.	SCORE Speaker	None
8.	Business Buzzwords	Terms on separate papers to hand out Copies of student activity guide (II-IV-47) Optional: Old-maid or Concentration type game of terms
9.	A Real Business!	Copies of your business assignment Copies of adapted SCORE business plan (II-IV-51 through II-IV-53) OR Copies of FHA business plan (II-VI-58 AND II-VI-59) Copies of equipment and supply needs (II-VI-54 and II-VI-55) Copies of costing sheets (II-VI-56 and II-VI-57) Samples of order forms for student reference Samples of invoices for student reference Other supplies as determined

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OPTIONS/ACTIVITIES

Note: If the teacher has a Level III class, such as Designer Sewing, this unit could be held over for that class, if desired. Or, the teacher could do individual businesses in one level and a class business in the other level. That way the students have the benefits of both experiences.

Option 1: **Opportunities Galore!**
Hang a really large piece of butcher paper or newsprint on a wall that can be easily accessed for writing on. Have the students brainstorm specific entrepreneurship opportunities related to textiles and apparel. The list is somewhat limitless, and that is the concept the students should get from this exercise. A list of some entrepreneurship opportunities is provided for the teacher in the resource section of this topic. This list is by no means complete but should be used as a mechanism to trigger thought patterns during the brainstorming session.

Option 2: **The Good and the Bad of Entrepreneurship**
One major point to be stressed during this topic is that Entrepreneurship Is An Opportunity. Using this concept as the starting point, have the students list as many things as they can think of that entrepreneurship offers. Have the students share their responses with the class and record them on the board. Some things will be positive; some will be negative. It is important that both perspectives be covered and discussed. Some suggestions have been provided in the resource section to trigger thought patterns. The student activity guide can be used for the students' responses.

Option 3: **Entrepreneurial Guest Speaker**
Ask someone in your community who is a successful entrepreneur to be a speaker. Preferably, ask someone who has a textiles and apparel related business. Some things to request the speaker to cover are:

- How he/she got started
- The advantages of entrepreneurship
- The disadvantages of entrepreneurship
- The rewards of entrepreneurship
- The difficulties he/she faces
- Any advice he/she might have

Option 4: **Is Entrepreneurship For Me?**
Begin by having the students assess the characteristics/work ethics of the guest speaker. (If you haven't had a guest speaker, then do the exercise based on observation, common sense, logic, etc.) List the characteristics on the board as they are identified. The teacher can use some of the characteristics listed on the student activity guide to prompt the students.

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OPTIONS/ACTIVITIES

When the list has been compiled, have the students write the characteristics on 8½-inch by 11-inch pieces of colored cardstock or posterboard.
Then link the cards together with paper clips fire-ladder style and hang them in the classroom. The teacher will need to provide a title card for the series. Have the students complete the student activity guide analyze whether or not they are good candidates for entrepreneurship.

Option 5: **Entrepreneurship Video**
Show a video that explains how entrepreneurship works and sparks the students' entrepreneurial spirit. There are several available, some of them being:

- Be Your Own Boss: Start a Business, from The Learning Seed
- Basics of Entrepreneuring, from Marketing Education Resource Center
- Boss: Owning Your Own Business, from Marketing Education Resource Center
- Home-Based Business: A Winning Blueprint, from Marketing Education Resource Center

The teacher will need to preview these to determine which one covers the materials he/she wishes to emphasize. They all take different approaches to the same topic.

Option 6: **Entrepreneurs**
Have the students read Chapter 29, Entrepreneurs, in the Clothing textbook from Glencoe. There are a number of suggested activities related to this material that could be used.
OR
Sewing and Handcrafts for Fun and Profit
Have the students read Chapter 25, Sewing and Handcrafts for Fun and Profit, in the Clothes and Your Appearance textbook from Goodheart-Willcox. Again, there are a number of suggested activities related to this material that could be used.

Option 7: **SCORE Speaker**
Contact the SCORE division of the Small Business Administration office nearest you. (SCORE is an acronym for Service Corps of Retired Executives.) SCORE counselors are an active group of volunteers that provide service and advice to anyone starting a business. They generally have a number of staff members who can give an informative perspective about starting your own business. All services are free of charge.

Option 8: **Business Buzzwords**
Introduce some standard business terms to the students, illustrating their meaning and explaining the importance of knowing and using the correct

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OPTIONS/ACTIVITIES

vernacular. A list of some basic terms is provided in the resource section of this topic. Give each student one term and have them find the definition of that term to share with the rest of the class. The terms could be handed out the day before the teacher plans to introduce them in class so the students could be prepared when they arrive in class. As each student provides his/her definition and explanation, the class can complete the student activity guide for future reference. An Old-maid or Concentration type of game could be made to learn and/or review the terms.

Option 9: **A Real Business!**

This option can be done as extensively as time allows and the teacher wants. Getting the students involved in a real money-making experience is the best way for them to gain an understanding of how entrepreneurship works. There are many ways this can be done: some suggestions are provided here, but there are many more ways of doing an entrepreneurial activity and the teacher will need to explore a number of different options before proceeding. However the teacher decides, he/she must do his/her homework and plan thoroughly in order to make it a successful experience. This cannot be a spur-of-the-moment activity. See the teacher background information for further details.

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RESOURCES

Textbooks

Entrepreneurship and Small Business Management, Allen Meyer, Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004. 1-800-334-7344. Catalog No. 0-02-675121-6 (Teachers Annotated Edition).

Clothing, Jeanette Weber, Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004-0543. 1-800-334-3744. Catalog No. 0-02-640161-4. Chapter 29.

Clothes and Your Appearance, Louise A. Liddell, Goodheart-Willcox Company, Inc., 123 W. Taft Drive, South Holland, IL 60473-2089. 1-800-323-0440. Catalog No. 0-87006-844-X. Chapter 25.

Curriculum Guides

PACE (Program for Acquiring Competence in Entrepreneurship), Level 2, provided by the Utah State Office of Education to the business/marketing department of every high school in the state.

Family and Consumer Sciences New Directions Handbook, Utah State Office of Education, Entrepreneurship Course Scope and Sequence, 1996.

Videos

Be Your Own Boss: Start a Business, from The Learning Seed, 330 Telser Road, Lake Zurich, IL 60047. 1-800-634-4941. Catalog No. 144. 21 minutes.

Basics of Entrepreneuring, from Marketing Education Resource Center, Inc., P.O. Box 11279, Columbus, OH 43212. 1-800-448-0398. Catalog No. VT-ENT-RE-K*9500*.

Boss: Owning Your Own Business, from Marketing Education Resource Center, Inc., P.O. Box 11279, Columbus, OH 43212. 1-800-448-0398. Catalog No. VT-BOS-BS-K*6900*.

Home-Based Business: A Winning Blueprint, from Marketing Education Resource Center, Inc., P.O. Box 11279, Columbus, OH 43212. 1-800-448-0398. Catalog No. VT-HOM-BL-K*3900*.

Other

Entrepreneurship bulletin boards, Schoolboards, Etc., P.O. Box 9106, Ogden, UT 84409. 1-800-93BOARD. Catalog Nos. MK108, MK109, MK111.

FHA STAR Event, Design a Business.

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EVALUATION/TEST QUESTIONS

COMPETENCIES:

1. **Identify entrepreneurship/home-based industry opportunities related to textiles and apparel.**

    1. List three (3) household products that could be manufactured in a home-based industry.
       - Answers will vary

    2. List three (3) infant products that could be manufactured in a home-based industry.
       - Answers will vary

    3. List three (3) boutique items that could be manufactured in a home-based industry.
       - Answers will vary

    4. List three (3) apparel related careers that could be a home-based industry.
       - Alterations, custom sewing, costumes, specialty apparel items

2. **Assess the advantages and disadvantages of entrepreneurship opportunities related to textiles and apparel.**

    1. List five (5) advantages of entrepreneurship.
       - Answers will vary

    2. List five (5) disadvantages of entrepreneurship.
       - Answers will vary

    3. If you were to become an entrepreneur, what do you think would be the most difficult things for you?
       - Answers will vary

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EVALUATION/TEST QUESTIONS

3. **Examine the characteristics, work ethics, and personal discipline required of successful entrepreneurs.**

   1. Fifteen (15) personal characteristics required to become successful entrepreneurs were identified and studied. List as many of them as you can and explain why that characteristic is necessary for entrepreneurs.

      ACHIEVER

      CREATIVE

      DETERMINED

      DILIGENT

      EAGER TO LEARN

      ENERGETIC

      GOAL SETTER

      INDUSTRIOUS

      INDEPENDENT

      INNOVATIVE

      RESOURCEFUL

      RESPONSIBLE

      RISK TAKER

      SELF-CONFIDENT

      SELF-STARTER

EVALUATION/TEST QUESTIONS

4. Recognize and use standard business terms.

1. Match the terms and definitions of the standard business terms by writing the number of the term in front of the definition.

1. ASSETS
2. CAPITAL
3. CASH FLOW
4. LIABILITIES
5. ACCOUNTS PAYABLE
6. ACCOUNTS RECEIVABLE
7. DIRECT COSTS
8. INDIRECT COSTS
9. MARKUP
10. OVERHEAD
11. PROFIT
12. RAW PRODUCT COST
13. PROFIT RATIO
14. DISTRIBUTER
15. RETAIL
16. WHOLESALE
17. RETAILER
18. WHOLESALER
19. PRODUCT
20. SERVICE
21. MANUFACTURE
22. MARKET
23. MARKETING STRATEGY
24. INVENTORY
25. COMPETITION

__4_ The amount of money you owe suppliers/lenders

__1_ What you own that has monetary value

__6_ The amount of money customers owe you

__2_ Cash used for investing in business

__3_ the money used for day-to-day operation

__5_ Indebtedness

__8_ Overhead costs

__7_ The costs of materials and lab or

_13_ The percentage of the retail price that is profit

_10_ The costs of running the business above materials and labor

_12_ The materials cost of a product

_11_ The same as "markup"

__9_ The difference between wholesale cost and retail price

_17_ One who sells to the public

_16_ The price the retailer pays for the product

_18_ One who buys from the distributer and sells to retailers

_14_ One who buys the product wholesale and resells to wholesalers and/or retailers

_15_ The price for which the item is sold to the public

_22_ Who your clients will be; who will buy your product

_24_ The amount of product on hand

_25_ A place or person selling the same service or product

_20_ Providing professional assistance rather than a product

_19_ An item manufactured for sale

_21_ To build, assemble, make

_23_ How you make your clients aware of your product or service

OPPORTUNITIES GALORE!

Some examples of entrepreneurship opportunities related to textiles and apparel are:

Household items:	Pillows Tablecloths Table runners Wall hangings Holiday flags Placemats Draperies Window coverings Quilts Holiday decorations
Travel items:	Wallets Makeup cases Jewelry cases Curling iron covers Ski boot covers Other boot covers Tote bags
Infant items:	Baby quilts Wall hangings Floor mats Diaper bags Bottle covers Burp cloths Bath towels Clothing
Apparel accessories:	Scarves Belts Vests Tote bags Hair bows Hats
Apparel:	Vests Jackets Custom clothing Alterations Costumes Shirts T-shirts/sweatshirts
Boutique items:	Doll clothes Pillows Wall hangings Table runners Placemats Napkins

THE GOOD AND THE BAD OF ENTREPRENEURSHIP

Entrepreneurship Is an Opportunity to

- be challenged
- take a risk
- earn good money
- work hard
- be creative
- have some element of freedom
- make your own choices and decisions
- have job satisfaction
- receive personal rewards
- have a flexible schedule
- exert management skills
- have freedom with responsibility
-
-
-
-
-
-

- lose money
- mismanage time
- make poor decisions
- work too many hours
- have irregular pay
- be taken advantage of
- cause family friction
-
-
-
-
-
-
-
-
-
-
-

Name ______________________________ Period ________ Date ________________

THE GOOD AND THE BAD OF ENTREPRENEURSHIP

Directions: Complete the following phrase with whatever you think of. There are no right and wrong answers—just think!

Entrepreneurship Is An Opportunity

Positive responses:

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________
11. ______________________________
12. ______________________________
13. ______________________________
14. ______________________________
15. ______________________________

Negative responses:

1. ______________________________
2. ______________________________
3. ______________________________
4. ______________________________
5. ______________________________
6. ______________________________
7. ______________________________
8. ______________________________
9. ______________________________
10. ______________________________
11. ______________________________
12. ______________________________
13. ______________________________
14. ______________________________
15. ______________________________

Name ______________________________ Period ________ Date ________________

IS ENTREPRENEURSHIP FOR ME?

Directions: On a scale of 1 to 10, rate yourself on the following characteristics.
10 = Maximum (Is applicable to you most of the time).
1 = Minimum (Is hardly ever applicable to you).
This activity only analyzes these particular characteristics, and may not cover other characteristics that are your best strengths. Don't worry—it's okay! Everyone isn't cut out to be an entrepreneur.

ACHIEVER	1	2	3	4	5	6	7	8	9	10
CREATIVE	1	2	3	4	5	6	7	8	9	10
DETERMINED	1	2	3	4	5	6	7	8	9	10
DILIGENT	1	2	3	4	5	6	7	8	9	10
EAGER TO LEARN	1	2	3	4	5	6	7	8	9	10
ENERGETIC	1	2	3	4	5	6	7	8	9	10
GOAL SETTER	1	2	3	4	5	6	7	8	9	10
INDUSTRIOUS	1	2	3	4	5	6	7	8	9	10
INDEPENDENT	1	2	3	4	5	6	7	8	9	10
INNOVATIVE	1	2	3	4	5	6	7	8	9	10
RESOURCEFUL	1	2	3	4	5	6	7	8	9	10
RESPONSIBLE	1	2	3	4	5	6	7	8	9	10
RISK TAKER	1	2	3	4	5	6	7	8	9	10
SELF-CONFIDENT	1	2	3	4	5	6	7	8	9	10
SELF-STARTER	1	2	3	4	5	6	7	8	9	10
TOTAL COUNT IN EACH COLUMN	____	____	____	____	____	____	____	____	____	____

Self-Analysis: If you have a lot of scores in the higher numbers, you are a likely candidate for being an entrepreneur. If you have more scores in the lower numbers, you may want to stick to being employed by someone else.

Name ______________________ Period ________ Date ______________

BUSINESS BUZZWORDS

Directions: Fill in the meaning of the business terms as each student supplies the definition.

ACCOUNTS PAYABLE ______________________________
ACCOUNTS RECEIVABLE ______________________________
ADVERTISING ______________________________
ASSETS ______________________________
CAPITAL ______________________________
CASH FLOW ______________________________
COMPETITION ______________________________
COST RATIO ______________________________
DIRECT COSTS ______________________________
DISTRIBUTER ______________________________
INDIRECT COSTS ______________________________
INVENTORY ______________________________
INVOICES ______________________________
LIABILITIES ______________________________
MANUFACTURE ______________________________
MARKET ______________________________
MARKETING ______________________________
MARKETING STRATEGY ______________________________
MARKUP ______________________________
OVERHEAD ______________________________
PRICING STRUCTURE ______________________________
PRODUCT ______________________________
PROFIT ______________________________
PROFIT MARGIN ______________________________
RAW PRODUCT COST ______________________________
RETAIL ______________________________
RETAILER ______________________________
SALES ______________________________
SERVICE ______________________________
WHOLESALE ______________________________

Name ______________________________ Period ________ Date ________________

BUSINESS BUZZWORDS

Directions: Fill in the meaning of the business terms as each student supplies the definition.

ACCOUNTS PAYABLE __The amount of money you owe suppliers/lenders_________

ACCOUNTS RECEIVABLE __The amount of money customers owe you___________

ADVERTISING ___A means of obtaining clients or customers__________________

ASSETS ___What you own that has monetary value____________________________

CAPITAL ___Cash used for investing in business____________________________

CASH FLOW ___The money used for day-to-day operation______________________

COMPETITION ___A place or person selling the same service or product___________

COST RATIO ___The percentage of the direct costs to retail price ________________

DIRECT COSTS ___The costs of materials and labor___________________________

DISTRIBUTER __One who buys the product wholesale and resells it to a retailer_____

INDIRECT COSTS ___Overhead costs_______________________________________

INVENTORY ___The amount of product on hand_______________________________

INVOICES ___The documentation of a sale_________________________________

LIABILITIES ___Indebtedness____

MANUFACTURE ___To build, assemble, make_______________________________

MARKET ___Who your clients will be; who will buy your product_________________

MARKETING ___The process of building client awareness_____________________

MARKETING STRATEGY _How you make your clients aware of your product or service_

MARKUP ___The difference between wholesale cost and retail price______________

OVERHEAD ___The costs of running the business above materials and labor________

PRICING STRUCTURE __Direct costs vs. indirect costs vs. wholesale vs. retail______

PRODUCT ___An item that has been manufactured for sale ____________________

PROFIT ____The same as "markup" ______________________________________

PROFIT MARGIN ___The percentage of the retail price that is profit______________

RAW PRODUCT COST ___The materials cost of a product______________________

RETAIL ___The price for which the item is sold to the public______________________

RETAILER ___One who sells to the public____________________________________

SALES _The dollar amount sold to buyers (retail and/or wholesale)_______________

SERVICE ___Providing professional assistance rather than a product______________

WHOLESALE ___The price the retailer pays for the product______________________

A REAL BUSINESS!

Individual Home-Based Business:
Have each student develop a home-based business by completing the following steps:

1. Prepare a business plan for a home-based or cottage business that utilizes his/her skills related to textiles and apparel. (Refer to the ideas identified in Option 1.) The business plan provided in this topic is adapted from the SCORE division of the Small Business Administration. The FHA Star Event plan is also included.
2. Determine the product(s) to produce/market.
3. Make a list of the supplies and equipment needed to produce the product(s). (See Business Plan Supplements)
4. Develop and produce some prototypes of the chosen product(s).
5. Prepare a costing sheet for his/her product(s). (See Business Plan Supplements)
6. Prepare a logo for his/her business and use on business card, invoice, etc. (Have students use a computer to do this to incorporate the use of technology.)
7. Look for competitive products and record the prices on them.
8. Do a small market survey to determine salability of product(s).
9. Take orders for the product(s) and produce them, or produce a given number of the product(s) and market them, keeping accurate records on product costs and selling price, hours spent, etc. (The products could be made at home or in class, depending upon teacher preference.)
10. Review business plan for accuracy and make changes as needed.
11. Write a report on what he/she has learned from the experience.

The class could set up an "Entrepreneurship Market" one day and sell their products to students in the school and/or people in the community. The students would gain an understanding about the importance of advertising and marketing techniques.

Group Business:
Have the class establish a business, following the steps outlined above.

In addition, have the students:

- Elect corporate officers
- Determine amount of working capital needed to begin
- Sell shares to obtain working capital
- Set up an assembly line type of production
- Pay employees
- Distribute percentage of profits to shareholders

By doing a group business, students learn the importance of teamwork, going the extra mile, etc. They may also experience some inequities, have some conflicts, etc., and these are opportunities to incorporate some conflict resolution techniques and group

A REAL BUSINESS! - PAGE 2

decision making. If there are students in the class who don't buy any shares, they are considered "employees"; those who bought shares are considered "shareholders." The class will need to decide who is included in the group decisions—all employees (shareholders or not), employees and shareholders, or whoever. Shares could also be sold to people outside the class who are not employees—another decision to be made.

As you can see, either of these business strategies offer a plethora of learning experiences. Inclusion of one or the other is encouraged. If your school has a Level III class, such as Designer Sewing, you may want to hold this activity for that level. The skills learned or learned about in other units of this curriculum should be the basis of this unit. BE SURE TO STAY WITH TEXTILES AND APPAREL RELATED PRODUCTS! (Gluing does not qualify as a textiles and apparel related skill.)

Some ideas for a group business are:

- Set up a clothing repair business for the faculty of the school, including such items as replacing zippers, changing hemlines, repairing tears/rips, replacing linings, etc. Make a price list of services offered and distribute.

- Offer to do uniforms for a performing group in your school—maybe vests, shirts, unlined jackets, or if you're real ambitious, dresses. Break the class into teams, one team for each size needed. Each team is responsible for producing the items ordered for their size.

- Set up a boutique shop, and there are lots of ways to handle that. Each student might be responsible for one particular item, or you could have the "pillow" team, the "stuffed animal" team, the "doll clothes" team, the "decorator items" team, the "school spirit" team (using colors and mascot of your school), etc.

- Set up a "Spirit Shop" in your school offering items that require sewing skills and promote your school. Some products could include banners, flags to wave at games, T-shirts or sweatshirts with your school emblem embroidered, caps or hats in school colors, etc.

One of the FHA Star Events is Design-A-Business. Students participating in these experiences would be eligible to compete in that category.

Name ______________________________ Period ________ Date ________________

BUSINESS PLAN

Directions: Complete the information in the following sections. Just do the best you can. Remember, this is a learning experience, so you are not expected to get everything perfect. Save the papers you do your figures on because frequently you have to refer back to them. When you have finished, you will have completed a business plan.

1. Ownership/management

Who will be the owner(s) of the business? ______________________________

What related skills and/or experience does he/she have? ___________________

Who will be the manager of the business? ______________________________

What related skills and/or experience does he/she have? ___________________

2. Description of the business

What will be the name of the business? ________________________________

Do you have a logo? _________ If so, attach a copy to this paper.

What products will you manufacture? __________________________________
and/or
What services will you provide? ______________________________________

When do you plan to start the business? _______________________________

Will the business be seasonal? _______________________________________

3. Business facility

What will be the business address? ____________________________________

Is this address zoned to accommodate this type of business? ______________

How much space can be devoted to the business? _______________________

Is that adequate? ____

What changes need to be made to accommodate the business? ____________

Do these changes need to be made before you can start the business? ______

What are your plans for making these changes? _________________________

Name ______________________ Period ________ Date ______________

BUSINESS PLAN - PAGE 2

4. Market

What group of people is your target market? ______________________

What geographical area does your market include? ______________________

Approximately how many persons are in that market? ______________________

What do you think will be your share of the market? ______________________

How will you market your product/service? ______________________

Do you plan to sell your product/service to a retailer? ______________________

Or, do you plan to be the retailer? ______________________

Have you done a market survey? ______________________

If so, summarize the results. ______________________

____

5. Competition

Who are your competitors? ______________________

What advantage(s) do you have over them? ______________________

What advantage(s) do they have over you? ______________________

6. Product and/or service costing/pricing

What will be the raw cost of the product? (materials only) ______________________

What will be the labor cost on the product? ______________________

How much overhead costs do you need to add? ______________________

(Overhead includes such things as rent, utilities, marketing or advertising expenses, insurance, office supplies and/or equipment, loan payments, etc.)

How much markup will you have? ______________________

What will be the retail price of the product and/or service? ______________________

What will be the wholesale price of the product and/or service? ______________________

How much profit will you have on each item and/or service? ______________________

Name ______________________________ Period ________ Date ______________

BUSINESS PLAN - PAGE 3

7. Personnel

Do you anticipate having to hire any employees during the first year? ________

If so, how many? ____________________

When do you expect to add employees? ______________________________

8. Equipment

What equipment do you need to start the business? ____________________

How much of that equipment do you have now? ____________________

How much will you have to purchase? ____________________

How much will that cost? ____________________

9. Supplies

What supplies do you need to start the business? ____________________

How many of those supplies do you have now? ____________________

How many will you have to purchase? ____________________

How much will they cost? ____________________

10. Financial (capital) needs

How much money do you need to start? ____________________

Include: equipment needs, initial supply costs, business license, facility changes, and capital to operate for three months.

Will you need a loan to start? ____________________

Considering your markup per item or service and the amount of your business loan, how many items/services would you have to sell to break even? ______

How much would your gross sales need to be per month to meet your needs and expenses? ____________________

Name ______________________ Period ________ Date ______________

BUSINESS PLAN - SUPPLEMENT A

Directions: Complete the information regarding the equipment and supplies needed to begin business below.

LARGE SEWING EQUIPMENT NEEDED:

NAME OF EQUIPMENT	I HAVE IT	I MUST BUY IT	COST	COMMENT

SMALL SEWING EQUIPMENT NEEDED:

NAME OF EQUIPMENT	I HAVE IT	I MUST BUY IT	COST	COMMENT

Name ______________________ Period ________ Date ______________

BUSINESS PLAN - SUPPLEMENT A - PAGE 2

PRODUCT SUPPLY NEEDS:

NAME OF SUPPLY	I HAVE IT	I MUST BUY IT	COST	COMMENT

BUSINESS EQUIPMENT/SUPPLY NEEDS:

NAME OF ITEM	I HAVE IT	I MUST BUY IT	COST	COMMENT

Name ______________________________ Period ________ Date ______________

BUSINESS PLAN - SUPPLEMENT B - PAGE 1

PRODUCT COST AND PRICING: (Wholesale)

	Wholesale Amount	Percent of Price
Direct Costs		
Fabric	________	________
Trimmings	________	________
Labor	________	________
Total Direct Costs	$________	________%
Indirect Costs		
Design and merchandising: Designer salaries, sample fabrics, cost of samples	________	________
General administrative overhead: Salaries, rent, utilities, insurance	________	________
Sales commission	________	________
Trade discount	________	________
Markdown allowance, promotion, or other service to retailers	________	________
Shortages	________	________
Total Indirect Costs	$________	________%
Total Costs	**$________**	**________%**
Taxes	________	________
Profit	________	________
Wholesale Cost of Product	________	________%

Name ______________________ Period ________ Date ______________

BUSINESS PLAN - SUPPLEMENT B - PAGE 2

PRODUCT COST AND PRICING: (Retail)

	Approximate Cost Per Item	Approximate % of Price
Wholesale price to retailer	________	________
Allowance for markdowns (averaged among all products in stock)	________	________
Allowance for shortages and theft (averaged among all products in stock)	________	________
Salaries and expenses (averaged per garment):		
Sales persons	________	________
Merchandising, buying	________	________
Clerical and stock room	________	________
Advertising, display, promotion	________	________
Administrative	________	________
Employee fringe benefits	________	________
Overhead (averaged per item):	________	________
Total	$________	________%
Taxes	________	________
Profits	________	________
Selling price will be:	$________	________%
Markup is:	$________	________%

Name ______________________________ Period ________ Date ______________

FHA STAR EVENT DESIGN A BUSINESS PLANNING GUIDE

Name of business

____

This guide identifies categories that must be incorporated into a small business plan. Each category includes, but is not limited to, items to be considered in the plan development. Identify resources used to develop each category within the plan. Resources may include reference books, visits to city, county, and/or state offices, interviews, etc.

Items to Be Researched & Developed	Resources Used
1. **Business Description**	
• Services	
• Hours of operation	
• Philosophy statement	
• Population served (demographics)	
• Business feasibility	
• Community survey data	
2. **Facility**	
• Space	
• Description	
• Utilities	
• Emergency procedures	
3. **Organizational Chart**	
• Job titles	
• Tasks	
4. **Funding for Business**	
• Methods/sources	
• Fee structure/income	
5. **Budget**	
• Income	
• Expenditures	
• Financial procedures	
• Taxes	

Name ______________________ Period ________ Date ______________

FHA STAR EVENT DESIGN A BUSINESS PLANNING GUIDE - PAGE 2

6. Forms/Records
- Financial
- Personnel

7. Staffing
- Hiring procedures
- Salaries and benefits
- Policies and procedures
- Evaluations/appraisals

8. Laws, Regulations, Codes
- Health
- Fire
- Insurance
- Zoning
- Local, county, state codes

9. Supplies and Equipment
- Suppliers
- Inventory
- Maintenance and repairs
- Replacement

10. Advertising/Recruitment
- Advertising plan
- Sample ads
- Plan for recruiting customers/clients
- Special events

DYNAMICS OF CLOTHING II

UNIT VII: *CREATIVE SEWING*

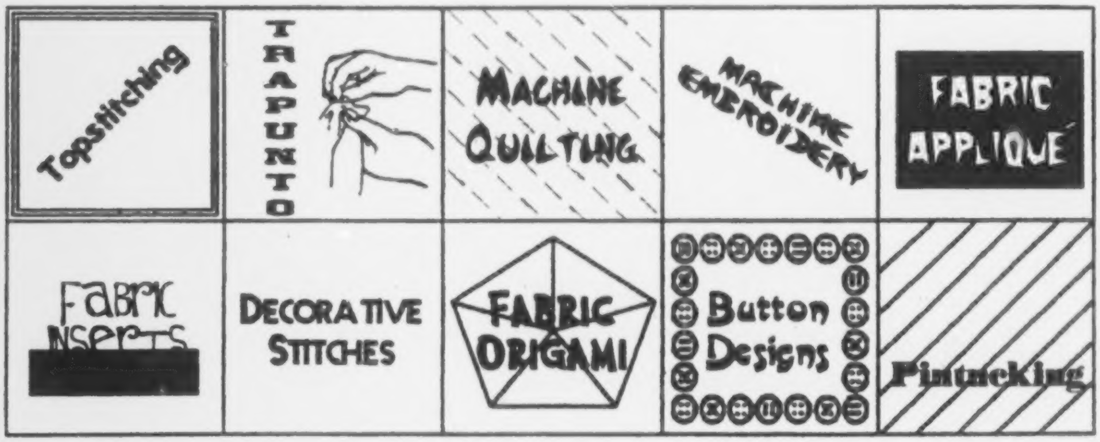
TOPIC A: SPECIALIZED TECHNIQUES

OBJECTIVE: Students will be able to perform a number of specialized sewing techniques for garment enhancement.

CONCEPT: Sewing can be a creative outlet that incorporates a variety of specialized sewing techniques. These techniques can enhance the appearance of the garment while filling a desire for creativity.

COMPETENCIES:

1. Recognize sewing as a creative outlet.
2. Perform specialized sewing techniques such as machine quilting, machine embroidery, inserting piping or pregathered lace, machine appliqué, pintucks, etc.
3. Apply specialized sewing techniques to garments/projects.


Topstitching
TRAPUNTO
MACHINE QUILTING
MACHINE EMBROIDERY
FABRIC APPLIQUÉ
FABRIC INSERTS
DECORATIVE STITCHES
FABRIC ORIGAMI
Button Designs
Pintucking

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ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. Machine Quilting	Fabric and batting Darning feet Copies of student instructions
2. Machine Appliqué	Pieces of fabric Fusible web Copies of student activity guide (II-VII-20)
3. Machine Embroidery	Embroidery hoops Darning feet Machine embroidery thread Copies of student instructions
4. Inserts: Piping, etc.	Fabric pieces Pieces of insertable trims Zipper feet
5. Pintucks	Fabric pieces Double needles Copies of student instructions
6. Topstitching	Fabric pieces Special threads Copies of student instructions
7. Decorative Stitches in Creative Ways	Fabric pieces Special threads Copies of student instructions
8. Fabric Origami	Fabric pieces Copies of student instructions
9. Trapunto	Fabric pieces Batting scraps Copies of student instructions
10. Button Designs	Fabric pieces Small flat buttons (shirt buttons) Copies of The Button Blanket Copies of student instructions
11. Technique Combo	Same as supplies listed above
12. Projects	(Supplied by students)

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ACTIVITIES/OPTIONS

Note: There are ten (10) specialized sewing techniques listed in this unit. It is impossible to cover all of them thoroughly in the time allotted, so the teacher will need to do some picking and choosing. Rather than trying to do one or two big projects utilizing few techniques, work toward learning more techniques on smaller areas, such as patchwork pieces.

There are many resources available for step-by-step instruction on each technique. Because there are so many available, specific titles have not been listed. Probably the two major sources for these resource books are **Nancy's Notions** and **Clotilde**. Each company has a large selection from which to choose.

All of the techniques covered in this unit are based on fabric and machine stitching. Techniques and/or projects which require glue do not qualify as sewing techniques and should not be included.

Some of these techniques can be dovetailed with other units, such as children's clothing, holiday items, home fashions, redesigning/recycling, or other.

One important concept of this unit is to encourage creativity and see what the students can do using the various techniques. Please be sure to allow for that. The excitement comes from mastering control of the machine and doing such fun things. Be careful not to get so caught up with every detail being perfect that the students aren't having fun. Remember, this topic is designed to introduce students to new techniques, not make them masters of each one

Look for people in your community who have expertise in particular techniques and ask them to be visiting demonstrators. It is okay if the teacher learns with the students.

Because there are so many resources readily available to support this unit, specific instructions for each technique have not been included in this curriculum. Only some general background information about each technique has been provided.

Many of these techniques require different machine feet and tension adjustments. Be sure to include the machine adjustments with each set of directions provided.

Most of all—have fun with this topic.

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ACTIVITIES/OPTIONS

Option 1: **Machine Quilting**
Some guidelines for free-motion machine quilting have been provided. A different machine attachment will need to be used along with tension adjustments.

Option 2: **Machine Appliqué**
Some guidelines for successful machine appliqué have been provided.

Option 3: **Machine Embroidery**
Some guidelines for successful machine embroidery have been provided. A different machine attachment will need to be used along with tension adjustments.

Option 4: **Inserts: Piping, Pregathered Lace, Etc.**
There are a number of types of trims that can be inserted into a seam that will enhance the appearance of an article. Inserting takes a little skill but can be mastered fairly quickly with some practice. A different machine attachment may be needed for applying the inserts. Zipper feet are commonly used for this type of application.

Option 5: **Pintucks**
A different machine attachment will need to be used along with tension adjustments. Pintucks require a double needle, and cording can be inserted, also. Different tension adjustments give different looks to the tuck. Have students try several different types of pintucks.

Option 6: **Topstitching**
Some guidelines for successful machine embroidery have been provided. Heavier thread, such as buttonhole twist, can be used to produce stitching that is more prominent, and other specialty threads can be used to create other looks. Have students try several types of topstitching, including using the double needle. Some machine adjustments may be necessary when using buttonhole twist or other heavy threads.

Option 7: **Decorative Stitches in Creative Ways**
Have the students use the decorative stitches available on their sewing machines and be creative about using them together, using different kinds and colors of threads, adjusting widths and lengths, etc.

Option 8: **Fabric Origami**
Just like paper origami, this Japanese folk art can be used with fabric. After the fabric is folded, it is incorporated into an article of clothing, a quilt piece, or whatever by stitching it in place. It's easy to do and not too time consuming.

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ACTIVITIES/OPTIONS

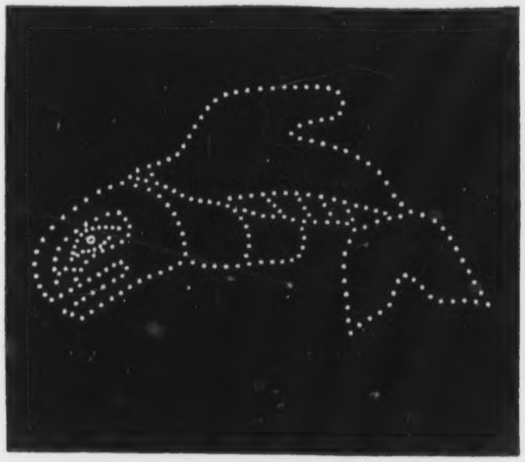
Option 9: **Trapunto**
Adding filler to the back of a design gives added dimensions to a design. Trapunto is fairly easy to do and can be learned quickly. A very simple design is suggested for a sample.

Option 10: **Button Designs**
This technique was developed by the Indian tribes of the Northwest. Flat, simple buttons are sewn all the way around a design to outline it, then other buttons are sewn in the center for features, design enhancement, etc. This is a fairly easy technique to do and one that the students could get into easily.

Option 11: **Technique Combo**
Assign the students to incorporate two or three of the techniques into one design, using the different techniques to complement each other.
Let their creativity flow.

Option 12: **Projects/Technique Application**
As was stated in the introduction to this unit, steer the students away from big projects with one or two specific techniques. Encourage SMALL samples that could be incorporated into a project such as a nine-patch pillow top, patchwork vest, or patchwork teddy bear with one patch for each technique learned. Again, encourage the students to be creative with their colors, applications, etc.

Once the students have learned these techniques, they can and will begin to incorporate them into many projects in many different ways.



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RESOURCES

Television

Sewing with Nancy on the educational channel. Teachers can learn a lot of tips and quick techniques from watching this regularly.

Books

Clothing, by Jeannette Weber, Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004. 1-800-334-7344.

A Guide to Fashion Sewing, Fairchild Books and Visuals, 7 West 34th Street, New York, NY 10001-8191. 1-800-247-6622. Catalog No. 748-0.

Creative Sewing Ideas and More Creative Sewing Ideas, Singer Sewing Series, Sew Perfect, P.O. Box 2400, Tupelo, MS 38803-2400, 1-800-344-3964. Catalog Nos. 388025, 387977.

Decorative Machine Stitching, Singer Sewing Series, Sew Perfect, P.O. Box 2400, Tupelo, MS 38803-2400, 1-800-344-3964. Catalog No. 387985.

McCall's Needlework Treasury, McCall Pattern Company, 230 Park Avenue, New York, NY 10163.

The Button Blanket, by Nan McNutt, Northwest Coast Indian Art Series, P.O. Box 295, Petersburg, AK 99833. ISBN: 0-9614534-1-9.

101 Sewing Secrets, Singer Sewing Series, Sew Perfect, P.O. Box 2400, Tupelo, MS 38803-2400, 1-800-344-3964. Catalog No. 387985.

Dimensions in Clothing, Nancy's Notions, P.O. Box 683, Beaver Dam, WI 53916-0683.

Resource Books and Notions Suppliers

Nancy's Notions, P. O. Box 683, Beaver Dam, WI 53916-0683.

Clotilde, 2 Sew Smart Way B8031, Stevens Point, WI 54481-8031. 1-800-772-2891.

Dover Publications, Inc., 31 East 2nd Street, Mineola, NY 11501. Ask for the Complete Needlecraft Catalog.

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EVALUATION/TEST QUESTIONS

1. **Recognize sewing as a creative outlet.**

    1. Sewing is an art form.
        A.* True
        B. False

    2. People have only been making beautiful works of art using fabric and various sewing techniques since the early 1900s.
        A. True
        B.* False

    3. Fabric becomes to the creative sewer what the canvas is to a painter.
        A.* True
        B. False

    4. When sewing becomes a creative outlet, it also becomes more enjoyable.
        A.* True
        B. False

    5. The number of techniques that offer a means of creativity is very limited when it comes to sewing.
        A. True
        B.* False

2. **Perform specialized sewing techniques such as machine quilting, inserting piping or pregathered lace, machine appliqué, pintucks, machine embroidery, etc.**

    Machine Quilting

    1. The feed dogs should be ______ while machine quilting.
        A. Up
        B.* Down

    2. The ______________ foot should be used for machine quilting.
        A.* Darning
        B. Zipper
        C. Cording
        D. Hemming

    3. The bobbin thread should always be brought to the surface before beginning to quilt.
        A.* True
        B. False

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EVALUATION/TEST QUESTIONS

4. You should try to run the machine at a fairly slow speed when machine quilting.
   A. True
   B.* False

5. When machine quilting, it is best to keep your eyes on:
   A. The needle
   B. The hole in the darning foot
   C.* Where you are going
   D. What you have just done

6. A constant speed is the secret to successful machine quilting.
   A.* True
   B. False

7. You should control the quilt with:
   A. Your whole hand
   B.* Your fingertips
   C. Your wrists
   D. All of the above

8. If you need to move from one quilting area to another, you should stop and cut your threads before you start again.
   A. True
   B.* False

9. If you need to reposition your hands as you work, it is best to stop:
   A.* With the needle down in the fabric
   B. With the needle up out of the fabric
   C. It really doesn't matter

10. To become really good at machine quilting takes:
    A. Very little practice
    B.* Lots of practice

EVALUATION/TEST QUESTIONS

Machine Appliqué

1. Appliqué means:
   A. Combining scraps of fabric to create a design
   B. To sew using a machine embroidery technique
   C.* Both of the above
   D. Neither of the above

2. You can put an appliqué in place with:
   A. Pins
   B. Glue stick
   C. Fusible web
   D.* All of the above

3. When appliquéing, overlapping areas are done ______ underlying detail is stitched.
   A.* After
   B. Before

4. When appliquéing, set the machine to sew:
   A. With a very narrow, short zigzag stitch
   B.* With a very wide, short zigzag stitch
   C. With a very wide, long zigzag stitch
   D. With a very narrow, long zigzag stitch

5. The stitch setting used for appliqué is also called:
   A. The overcast stitch
   B. The backstitch
   C.* The satin stitch

6. The stitching process requires that the operator:
   A. Pivot the work regularly
   B. Secure threads and fabric before starting
   C. Hold the fabric or hoop loosely
   D.* Both A and B are correct

7. To prepare an appliqué, how should the materials be layered on the ironing board?
   Top: White butcher paper
   Top middle: Appliqué piece
   Bottom middle: Fusion material
   Bottom: Garment or fabric

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EVALUATION/TEST QUESTIONS

Machine Embroidery

1. The feed dogs should be ______ while embroidering with the machine.
   A. Up
   B.* Down

2. The ______________ foot should be used for machine embroidery.
   A.* Darning
   B. Zipper
   C. Cording
   D. Hemming

3. The bobbin thread should always be brought to the surface before beginning to embroider.
   A.* True
   B. False

4. You should try to run the machine at a fairly slow speed when machine embroidering.
   A. True
   B.* False

5. When machine embroidering, it is best to keep your eyes on:
   A. The needle
   B. The hole in the darning foot
   C.* Where you are going
   D. What you have just done

6. A constant speed is the secret to successful machine embroidery.
   A.* True
   B. False

7. You should control the fabric or hoop with:
   A. Your whole hand
   B.* Your fingertips
   C. Your wrists

8. If you need to move from one embroidery area to another, you should stop and cut your threads before you start again.
   A. True
   B.* False

9. If you need to reposition your hands as you work, it is best to stop:
   A.* With the needle down in the fabric
   B. With the needle up out of the fabric

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EVALUATION/TEST QUESTIONS

Inserts: Piping, Pregathered Lace, Etc.

1. Trims are inserted in a garment:
   A. After the garment is constructed
   B.* During construction of the garment
   C. Before the garment is constructed
   D. During or after construction of the garment

2. Many different types of trims are available pregathered and ready to be sewn in.
   A.* True
   B. False

3. How many layers of fabric are necessary to insert a trim?
   A. One
   B.* Two
   C. Three
   D. Four

4. To insert a trim means to:
   A. Sew the trim on top
   B. Sew the trim underneath
   C.* Sandwich the trim between the layers
   D. Any of the above are correct

5. A foot that is commonly used when inserting trims is the:
   A. Blind hem foot
   B.* Zipper foot
   C. Darning foot
   D. Cording foot

6. Because one is sewing through a number of thicknesses to insert something, one may have to use a heavier weight needle to keep it from breaking.
   A.* True
   B. False

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EVALUATION/TEST QUESTIONS

Pintucks

1. To make a pintuck, one needs a:
   A. Special foot
   B. Two layers of cloth
   C.* Double needle
   D. Special machine

2. To get a tighter tuck, one should:
   A.* Tighten the tension
   B. Loosen the tension
   C. Use a heavier thread
   D. Use a bigger needle

3. To get a really prominent tuck, one should:
   A. Sew it twice
   B.* Add a thin cord to it
   C. Add a thick cord to it

4. Pintucking should always be done:
   A. After the garment is constructed
   B. During construction of the garment
   C.* Before the garment is constructed
   D. During or after construction of the garment

5. Pintucking is a quick and easy way to enhance the appearance of a garment.
   A.* True
   B. False

6. Double needles with a wider space between the needles make a:
   A. Smaller tuck
   B. Bigger tuck
   C. Wider tuck
   D. Taller tuck
   E.* Both B and D are correct

7. To really accent the pintucks, one should:
   A.* Use a different color of thread
   B. Use the same color of thread
   C. It doesn't matter

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EVALUATION/TEST QUESTIONS

Topstitching

1. You are using machine stitching applied to the right side of the garment to accent its style lines. Which stitch should you use?
   A. Understitching
   B.* Topstitching
   C. Overstitching
   D. Pick stitching

2. Topstitching:
   A. Keeps the seams from coming apart or the stitching from coming out
   B. Adds life to the garment by preventing raveling
   C.* Provides decoration; keeps edges flat and prevents facing from rolling to the right side

3. To topstitch a rounded area with a double needle, one should:
   A. Stitch to the corner; stop; pivot the fabric 45 degrees one time; continue stitching
   B.* Stitch to the beginning of the corner; stop; pivot the fabric slightly; stitch two to three stitches; stop; pivot slightly; stitch two to three stitches; etc.
   C. Stitch to the corner area and try to hold the fabric so one side doesn't feed as fast as the other

4. Topstitching can be done with:
   A. One thread through the needle
   B. Two threads through the same needle
   C. A heavier thread such as buttonhole twist
   D. A double needle
   E.* All of the above

5. Topstitching provides a finishing touch to garments.
   A.* True
   B. False

6. This foot provides a guide to help you topstitch straight and even.
   A.* Blind hem foot
   B. Zipper foot
   C. Darning foot
   D. Cording foot

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EVALUATION/TEST QUESTIONS

Decorative Stitches in Creative Ways

1. The length and width of decorative stitches can be controlled and changed to create different effects.
   A.* True
   B. False

2. Decorative stitches can only be used individually as shown on the machine.
   A. True
   B.* False

3. Decorative stitches can become more creative by:
   A. Using different kinds of thread
   B. Using different colors of thread
   C. Changing the width and/or length
   D. Making a pattern using two or more decorative stitches
   E.* All of the above

4. Using a silk thread for a decorative stitch will give a very different appearance than using a poly/cotton blend thread.
   A.* True
   B. False

Fabric Origami

1. This fabric art was originated by the Japanese.
   A. Button Designs
   B.* Fabric Origami
   C. Seminole Patchwork
   D. Mola

2. Describe fabric origami.
   It is the folding of fabric to create a design; then the design is stitched onto another piece of fabric and integrated into an article of clothing.

3. List three (3) ways that creativity can come from fabric origami.
   1. The folding of the fabric
   2. The use of color
   3. The combination of fabrics

4. Fabric oragami is a very difficult type of fabric art.
   A. True
   B.* False

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EVALUATION/TEST QUESTIONS

Trapunto

1. Describe the trapunto technique.
   A technique whereby a design is sewn through two pieces of fabric; the back piece is slit open and a filling is stuffed into the opening. When the opening is sewn shut, a two-dimensional effect has been created.

2. The filling should be added between the layers before the design is stitched.
   A. True
   B.* False

3. Quilt batting can be used for the filling.
   A.* True
   B. False

4. The trapunto can be used in combination with:
   A. Machine embroidery
   B. Appliqué
   C. Hand embroidery
   D.* All of the above

Button Designs

1. This fabric art was originated by the Indians tribes of the Northwest.
   A.* Button Designs
   B. Fabric Origami
   C. Seminole Patchwork
   D. Mola

2. The kind of buttons used for button designs are:
   A. Shank buttons
   B.* Very flat buttons
   C. All kinds of buttons

3. The fabric to be used for button designs should be:
   A. Very light weight; thin
   B. Medium weight; medium thickness
   C.* Heavier weight; thick

4. The fabric to be used for button designs should also be:
   A.* Tightly woven; stable
   B. Loosely woven; unstable

MACHINE QUILTING

Introduction

Free-motion quilting will open up a new world to any sewer. It requires quite a bit of practice to master the technique, but when you are producing quilting designs in minutes, the time will have been well spent. What freedom is allowed when the presser foot is removed. You can go forward, backward, side to side, in circles—anywhere you want to go—without ever turning the quilt.

Free-motion quilting gives the machine quilter the maneuverability needed to reproduce intricate designs used by hand quilters. Almost any hand quilting design can be done using free-motion methods. It gives you access to small designs, sharp curves, and intricate patterns often very difficult to achieve by hand. After practicing and experimenting, you will also find yourself ditch quilting shorter lines with your darning foot.

Setting Up the Machine

Put the darning foot on your machine, and drop or cover your feed dogs, whichever your machine requires. Check your owner's manual if you are unsure how to do this. Because the feed dogs are dropped, no stitch length adjustment is necessary. The stitch length is controlled by the speed in which you move the fabric under the foot, and the speed of the machine.

Get in the habit of always bringing the bobbin thread to the surface of the fabric before beginning to stitch. Be sure both threads are under the darning foot, not coming up through it. Having both threads on top prevents them from jamming and snarling on the underside. Then lower the needle into the hole where the bobbin thread is, and lower the presser bar.

Since no feeding is being done by the feed dogs, you will need to learn to move the fabric manually as you run the machine. This is where the concept "hand quilting with an electric needle" comes into play.

Quilting By Machine

Your goal is to run the machine fairly fast. The faster you run the machine, the easier it is to develop accurate lines in your quilting. Practice on sample plain blocks. Find a comfortable speed and then keep it constant. Develop a rhythm with the motor speed of the machine. However, DO NOT GUN THE MACHINE. Also, do not go fast, then slow, then fast again. Erratic speed keeps your hands from developing a constant rhythm with the machine, and the quilting stitches will be ragged and uneven.

MACHINE QUILTING - PAGE 2

Start practicing by scribbling a design on a plain block. Pay attention to the speed of the machine, how your hands are moving the fabric under the needle, and the direction in which you need to move the fabric. Take a breath and relax. Think of it as drawing with the needle. You want a steady, flowing motion with the fabric while the machine is running at a constant speed. If your machine has two motor speeds, try the slower one. This allows you to push the foot control all the way to the floor without going too fast and getting out of control.

Once you get a feel for the motion needed to move the fabric, start to move the fabric very slowly, side to side, and see what the stitch length looks like. Again, keep the machine at a constant speed. Begin to speed up the motion of your hands, but always keep the machine at the same speed. You should start to see the stitch length get longer and longer until eventually you are creating a basting stitch. This demonstrates how the stitch length is due to the motion of your hands, their consistency, and the speed of your machine. Refine the stitch length to the exact length you like when using the walking foot. Eventually you will want all of your stitches to be the same length, regardless of the technique used.

Things to remember:

- Never turn the fabric, just glide it where you want it.
- Your hands need to be relaxed and your wrists kept up.
- Quilt with your fingertips, not your whole hand. This allows your fingers to gently walk the fabric where you want it.
- Use a gentle gliding motion. Too much pressure will cause the fabric to drag, making jerky, uneven movements.
- Don't look at the needle or the hole inside the darning foot; keep your eyes slightly ahead of the needle.
- Quilt like you drive; know where you are going before you get there. Your eyes need to check on what you're doing, but only glance back and forth. Keep your eyes on where you're going.
- If you're working on a design where you have to move from one area to another, do not cut the thread as you move. Lock the threads at the end of the area, pull them across to the next area, lock them again at the beginning of the new line, and start stitching. After you finish with the design, clip all the extra threads.
- If you need to reposition your hands as you work through a design, stop with the needle in the down position. This will prevent the quilt from sliding and causing a loop of excess thread on the bottom of the quilt.
- Try resting your forearms or elbows on the edge of the table. Then you can lean into the work, removing the tension from your shoulders and back.

MACHINE QUILTING - PAGE 3

When stitching forward and backward, don't worry if the lines are not straight. To begin, you are only concerned with the stitch length quality. Keep going up and down until you are able to keep the stitches fairly accurate.

Next, stitch side to side, left to right, back to the left, back to the right, etc. This will be foreign to you, since one generally does not sew sideways. Practice this until the stitches even out and become consistent.

Now try to do some large zigzags. Zigzag across your block, locking off the stitches at the beginning and end of each line. This is done by slowing the speed of the fabric, not the machine. You want to have 1/4 inch of very tiny stitches at the beginning and end of every line as in ditch quilting. It may take practice to become accustomed to using different hand speeds while the machine is running at a constant speed.

Next try drawing "e" and "l" shapes as though practicing penmanship. Keep practicing until the curves are smooth and free of points and ragged edges. Also try loops, circles, and anything else you can think of.

Continue practicing by drawing stars, hearts, your name, pictures, or anything else that comes to mind. Don't draw these images on the fabric; rather, visualize them and reproduce what you see in your head. The freedom you experience is like soaring.

Once you feel you have control of the fabric and the stitch length, move on to a sample block. Draw a variety of continuous curve patterns on the block. Free drawing like you've been doing is fairly easy, but it becomes more difficult when you are restricted to a given line. Don't get too involved with the stitch length quality at first. It is very difficult to train yourself to stay on the line, let alone be able to keep the stitches accurate. All this will develop with time and practice. For now, concentrate on the lines and your eye placement.

Making machine quilting lines takes a lot of concentration. While practicing, give yourself plenty of uninterrupted quiet time, and don't expect to quilt perfectly at first.

MACHINE APPLIQUÉ

Appliqué is the process of sewing one or more pieces of fabric to the top of a larger piece of fabric. It can be done by hand or by machine—the machine stitching is faster and provides a more finished look. This process allows the sewer to have some artistic license, as well as being a practical solution for covering tears and worn-out spots.

Directions:

1. Select your design and/or fabric for appliqué and prepare it. This can be done several ways.
    - A. For original work, trace the design on the right side of the fabric you wish to use.
    - B. For non-original work, choose a graphic from another piece of fabric.

2. Cut out the design, leaving a 1/4-inch seam allowance all the way around.

3. Place on garment and prepare to baste or fuse in place. Again this can be done several ways.
    - A. The appliqué can be basted in place with a long running stitch by hand or machine.
    - B. The appliqué can be fused in place with fusible web, such as Stitch Witchery, Wonder-Under, or Heat and Bond. (Place the fusible web between the graphic and the garment.) Match web weight to fabric.
    - C. The appliqué can be fused in place by using a piece of plastic bag. (Must be a thin plastic like a food produce bag or dry cleaning bag. DO NOT use heavier food storage bags or colored plastic.)

4. Trace outline of appliqué on fusing material and cut out 1/4 inch smaller than appliqué size.

5. Layer the following items on the ironing board:
    Top: Piece of plain paper (like butcher paper)
    Top middle: Appliqué piece
    Bottom middle: Fusion web or plastic
    Bottom: Garment (or fabric)
    Very bottom: Ironing board

6. Baste or fuse in place. This is necessary to keep the appliqué from shifting during stitching. When applying heat, follow the directions of the manufacturer. (Generally this will be about five seconds.) Check to make sure the appliqué is fused; if not, repeat process.

7. Remove butcher paper and dispose of it.

8. Use a satin stitch (wide, very short zigzag) and stitch around the edge of the appliqué. Trim as needed when finished.

Name ____________________ Period __________ Date ______________

MACHINE APPLIQUÉ

1. What does the term appliqué mean?

   ____

2. Appliqués can be done by ____________ or ____________.

3. List the materials that you need for making an appliqué.

   1. ____________________ 2. ____________________

   3. ____________________ 4. ____________________

4. If you plan on washing the appliqué prior to application, what should you do before washing?

   ____

5. Do you have to use 100 percent cotton fabric when making an appliqué?

   ____

6. What do you need to do when selecting fabrics and/or designs?

   ____

7. Give the characteristics of each of the following types of fusible web.

   Heavyweight web: ______________________________

   All-purpose web: ______________________________

   Lightweight web: ______________________________

8. To prepare an appliqué, how should the materials be layered on the ironing board?

   Top: ______________________________

   Top middle: ______________________________

   Bottom middle: ______________________________

   Bottom: ______________________________

9. Why should you use a piece of plain white butcher paper on top?

   ____

10. What stitch do you use for sewing the appliqué to the fabric?

    ____

    How do you set your machine to do this stitch?

    ____

Name ________________________ Period __________ Date ________________

MACHINE APPLIQUÉ

1. What does the term appliqué mean?
   _Appliqué is the process of sewing one or more pieces of fabric to the top of a larger piece of fabric to create a pattern or design.__________________
2. Appliqués can be done by __hand_______ or ___machine__________.
3. List the materials that you need for making an appliqué.
   1. __Pattern or design_________ 2. __Fusible web____________
   3. __Scraps of fabric__________ 4. __Main fabric/garment_____
4. If you plan on washing the appliqué prior to application, what should you do before washing?
   ____Overcast the edges____
5. Do you have to use 100 percent cotton fabric when making an appliqué?
   ___No___However, 100 percent cotton fabric fuses nicely.________________
6. What do you need to do when selecting fabrics and/or designs?
   ___Make them coordinate; be sure the appliqué is an enhancement._
7. Give the characteristics of each of the following types of fusible web.
   Heavyweight web: _Requires no sewing; bonds with heat; for heavy fabrics__
   All-purpose web: ____Requires sewing and heat; for medium weight fabrics__
   Lightweight web: ____Requires sewing and heat; for lightweight fabrics____
8. To prepare an appliqué, how should the materials be layered on the ironing board?
   Top: _____White butcher paper____________________________
   Top middle: _____Appliqué piece_______________________________
   Bottom middle: _____Fusion material_____________________________
   Bottom: _____Garment or fabric____________________________
9. Why should you use a piece of plain white butcher paper on top?
   ___Any excess fusion material will melt on the paper instead of the iron_____
10. What stitch do you use for sewing the appliqué to the fabric? __Satin___
    How do you set your machine to do this stitch?
    ____For a wide, very short zigzag_______________________________

MACHINE EMBROIDERY

Embroidering by machine opens many doors for unique and creative stitchery. As with most things worthwhile, it takes practice to become proficient, but one can do acceptable work in just a few hours.

Free machine embroidery is described as decorative machine stitchery where the presser foot is removed and the feed dogs are covered or lowered. The fabric moves freely as directed by the hands. The speed of the machine and direction of the movement determines the stitch length and the decorative effect.

Preparing Fabric:

- Transfer design onto fabric with a fabric marker, chalk, or stitch outline.
- Place non-fusible interfacing (or coffee filter) behind the area to be stitched.
- Place fabric and interfacing in hoop.

Using a Hoop:

- Assemble the hoop with the large circle (the one with the screw adjustment) on the bottom.
- Place the fabric right side up on top.
- Push the smaller hoop down into the larger ring.
- Pull fabric so it is taught; tighten screw.
  (You may not be able to use a hoop on very heavy fabric like terry cloth. When possible, the hoop works best.)

Preparing the Machine for Embroidery:

- Lower the feed dogs.
- Remove presser foot and replace with darning or embroidery foot.
- Use machine embroidery thread for the upper thread; use regular cotton/polyester thread for the bobbin.
- Place hoop (with fabric) under the darning foot.
- Pull the bobbin thread to the top of the fabric and lower the presser foot lever. Secure threads by holding both threads and taking a few stitches in the same place. Cut off ends.

Get in the habit of always bringing the bobbin thread to the surface of the fabric before beginning to stitch. Be sure both threads are under the darning foot, not coming up through it. Having both threads on top prevents jamming and snarling on the underside.

MACHINE EMBROIDERY - PAGE 2

Stitching:

- Sew smoothly, coordinating hand and eye movements.

Since no feeding is being done by the feed dogs, you will need to learn to move the fabric manually as you run the machine. This is where the term "free machine embroidery" comes into being. The stitching (width and length) is controlled by the speed in which you move the fabric under the foot, and the speed of the machine.

Your goal is to run the machine fairly fast. The faster you run the machine, the easier it is to develop accuracy in your embroidery. Practice on sample pieces. Find a comfortable speed and then keep it constant. Develop a rhythm with the motor speed of the machine. However, DO NOT GUN THE MACHINE. Also, do not go fast, then slow, then fast again. Erratic speed keeps your hands from developing a constant rhythm with the machine, and the stitching will not be smooth and attractive.

When using a hoop, direct the hoop with little fingers and thumbs outside the hoop; keep other three fingers of both hands firmly pressed against the fabric near the needle. When not using a hoop, fingers must hold fabric firmly against the needle plate. Grasp fabric at the edges.

There is a special thread made specifically for machine embroidery. It is a thinner, finer thread and is not strong enough to be used for regular sewing. For maximum performance, it is recommended that this thread be used. However, threads made from different fibers create different visual effects with the embroidery. Silk and rayon threads will provide more sheen, cotton threads less sheen, etc. Try using several kinds of threads to see the difference, but be sure they are very thin threads to prevent machine jamming. Regular sewing thread (cotton/polyester blend) is used on the bobbin.

TOPSTITCHING

Always sew on the right side of the fabric when topstitching. If a special thread is used, it is always placed on the upper spool and threaded through the needle(s).

Use a blind hem foot to keep the stitching even from the edge.

When sewing around the point of a collar, begin stitching with a very small stitch about 3/4 an inch from the point. Pivot on the point and continue stitching with small stitches for about 3/4 of an inch. Return to normal length stitch. This prevents the upper threads from showing on the underside of the collar.

To make a smooth and even topstitching around the points of collars and other bulky areas where there is nothing to hold on to, attach a strong thread about 4 or 5 inches in length to hold as you guide the point through the machine. After you are past the point or bulky area, remove the thread.

Using different types and weights of sewing thread creates different effects. For a shinier finish, use silk or rayon threads. For a duller finish, use cotton thread. For a metallic look, use metallic thread. Two colors and/or two types can be combined to create an entirely different look.

The double needle is commonly used for topstitching because it sews two rows at once. When using the double needle, always sew on the right side of the fabric because the back side will look like a zigzag. Two top threads are needed. Thread the machine like one thread and separate at the needle.

Do NOT try to do a zigzag or a decorative stitch with a double needle without checking the individual machine manual to determine if the presser foot and needle plate will accommodate a double needle.

For corners: Stop sewing one or two stitches from the corner; leave the needle in the fabric; lift the presser foot; turn the fabric just a little; lower the presser foot; and with the hand wheel take one stitch. Repeat this two to three times until you have turned the corner.

Secure topstitching by pulling the threads to the underside and tying a knot rather than trying to backstitch. If you are sewing in a circle, sew your very last stitch over the beginning stitch, and then pull thread to the underside and tie.

Double needles can be purchased in different needle sizes to accommodate different weights of fabric. Double needles with different widths between the two needles can also be purchased.

DYNAMICS OF CLOTHING II

UNIT VII: *CREATIVE SEWING*

TOPIC B: **ORIGINAL DESIGNS**

OBJECTIVE: Students will be able to make standard modifications to a pattern to obtain a specific design or look for a garment.

CONCEPT: The seamster does not have to be limited to rack pattern designs. With a little training, any pattern can be converted to produce exactly the design or look desired. This is a skill that serves the seamster on many occasions.

COMPETENCIES:

1. Identify methods for developing original designs.
2. Study flat pattern design principles.
3. Apply flat pattern design techniques.
4. Incorporate original designs and/or specialized techniques in project(s).

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. How to Make Original Designs (Introduction)	Materials and supplies for demonstration - Butcher paper - Pencil and eraser - Paper scissors - Rulers - Transparent tape - Sloper - Overhead transparencies (II-VII-32 through II-VII-34)
2. Pattern Changes (Samples)	Copies of mini-pattern pieces (II-VII-37 through II-VII-43) (May be laminated for students to trace)
3. Fashion Design Project	Students supply materials
4. Original Design Project (Optional)	Students supply materials

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ACTIVITIES/OPTIONS

Option 1: **How To Make Original Designs: Introduction**
Introduce the students to this unit by demonstrating some of the theories and examples of pattern modifications. (Also known as flat pattern design.) Included in this topic is a copy of the resources developed to support this unit in the Fashion Strategies curriculum.

There are a number of publications that address this topic and teachers are encouraged to review the material thoroughly before beginning instruction.

Option 2: **Pattern Changes (Samples)**
Have students make samples of pattern changes requested. Two different student activity guides have been included as examples. One would probably be used for a semester or trimester class, and the other one for a year-long class.

Either give each student a set of the mini-patterns to use for their samples or run several sets of the mini-patterns on colored card stock and laminate them for the students to trace around.

Some guidelines about darts and the principles pertaining to darts have been included for students and/or teacher reference. Also, a guide for pattern symbols that must be transferred and/or included as a pattern is modified or originally developed.

Option 3: **Fashion Design Project**
For a final application project, have the students make a garment that meets specific design requirements, such as:

Final project requirements: (sample)
Options:
Half-scale design
Doll dress
Full-scale design

Must include:
1. A collar of your design.
2. At least one change to the bodice front and back. (Move at least one dart.)
3. At least one change to the sleeves.
4. A skirt you've designed to go with your bodice. (You can make a dress.)

One major criteria:
STUDENTS MUST HAND IN BOTH THEIR PATTERNS AND THEIR FINISHED DESIGN PROJECTS FOR CREDIT.

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ACTIVITIES/OPTIONS

Option 4: **Original Design Project (Optional)**

Assign the students to:

1. Totally develop a pattern for themselves from scratch,
2. Make the project in muslin first, and
3. Then construct in the selected fabric.

All of this is optional and dependent upon skill levels of class members, time restrictions, etc. This could be broken into three (3) components and only part 1 assigned, only parts 1 and 2, or all three.

RESOURCES

Books

From Fairchild Books and Visuals, 7 West 34th Street, New York NY 10001, 1-800-247-6622.

Designing Apparel Through the Flat Pattern, 6th Edition; Kopp, Rolfo, Zelin, Gross; Catalog No. 737-5.

How to Draft Basic Patterns, 4th Edition; Kopp, Rolfo, Zelin, Gross; Catalog No. 747-2.

Basic Pattern Skills for Fashion Design; Bernard Zamkoff and Jeanne Price; Catalog No. 570-4.

Creative Pattern Skills for Fashion Design: Bernard Zamkoff and Jeanne Price; Catalog No. 682-4.

From Clotilde Inc., 2 Sew Smart Way B8031, Stevens Point, WI 54481-8031, 1-800-545-4002.

How to Make Sewing Patterns, McCunn, Donald H., Catalog No. 151688.

Fabulous Fit, Rasband, Judith; Catalog No. 155634.

Make it Your Own, Lori Bottom and Ronda Chaney, Catalog No. 154464.

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EVALUATION/TEST QUESTIONS

1. Identify methods for developing original designs.

1. Name three (3) ways original designs can be developed.
    1. Modifying a pattern
    2. Combining patterns
    3. Developing pattern

2. It is not a good idea to modify a pattern—it's better left the way it was.
    A. True
    B.* False

3. Pattern changes are very difficult and require a lot of skill.
    A. True
    B.* False

2. Study flat pattern design principles.

1. Darts can be: (Check all that apply)
    _xx_ Moved
    ____ Avoided
    _xx_ Combined
    _xx_ Divided
    ____ Ignored
    ____ Converted to facings
    _xx_ Converted to gathers
    _xx_ Converted to seamlines
    _xx_ Converted to tucks
    ____ Combined with facings
    _xx_ Converted to flare
    ____ Released

2. When adding flare to a skirt, it is important to keep the _______ seam(s) on the grainline.
    A.* Center front and back
    B. Side
    C. It doesn't matter—either will be okay

3. When changing bodice lines, it is important to keep the _______ seam(s) on the grainline.
    A.* Center front and back
    B. Side
    C. It doesn't matter—either will be okay

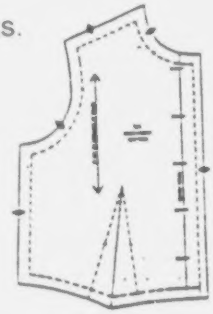
EVALUATION/TEST QUESTIONS

4. Darts should be repositioned so they end near the fullest part of the body.
   A.* True
   B. False

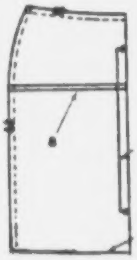
5. The dart positions in patterns are correct for everyone who wears that size.
   A. True
   B.* False

6. Darts are the medium by which fabric is made to conform to the body contour.
   A.* True
   B. False

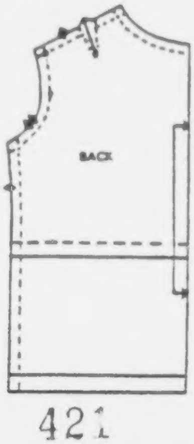
7. Change the waist dart in the bodice front to tucks.

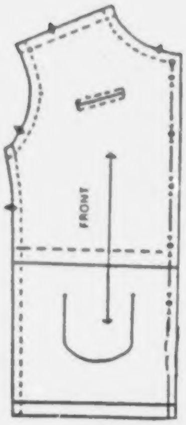


8. Add flare to the skirt pattern below.



9. Draw a flat collar pattern for this bodice.

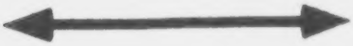


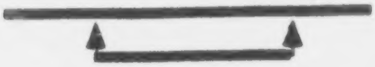


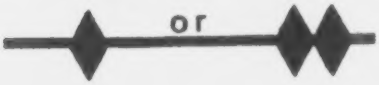
EVALUATION/TEST QUESTIONS

X. **Fill in the pattern markings for the following items:**

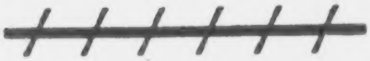
1. **CF** **CB** Center Front and Center Back

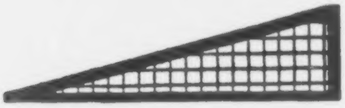
2.  Grainline

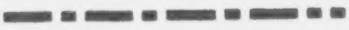
3.  Foldline

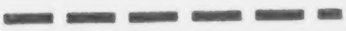
4. 

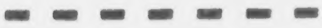
Notches

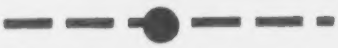
5.  Slash marks = original line marked out

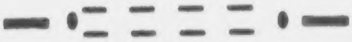
6.  Cross hatched = original part of pattern not used

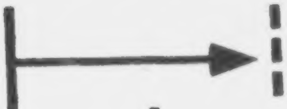
7.  Guide line (mark in red)

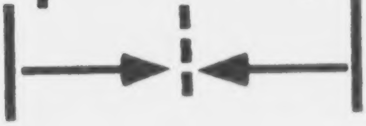
8.  Stitching line

9.  Top stitching line

10.  Precision points

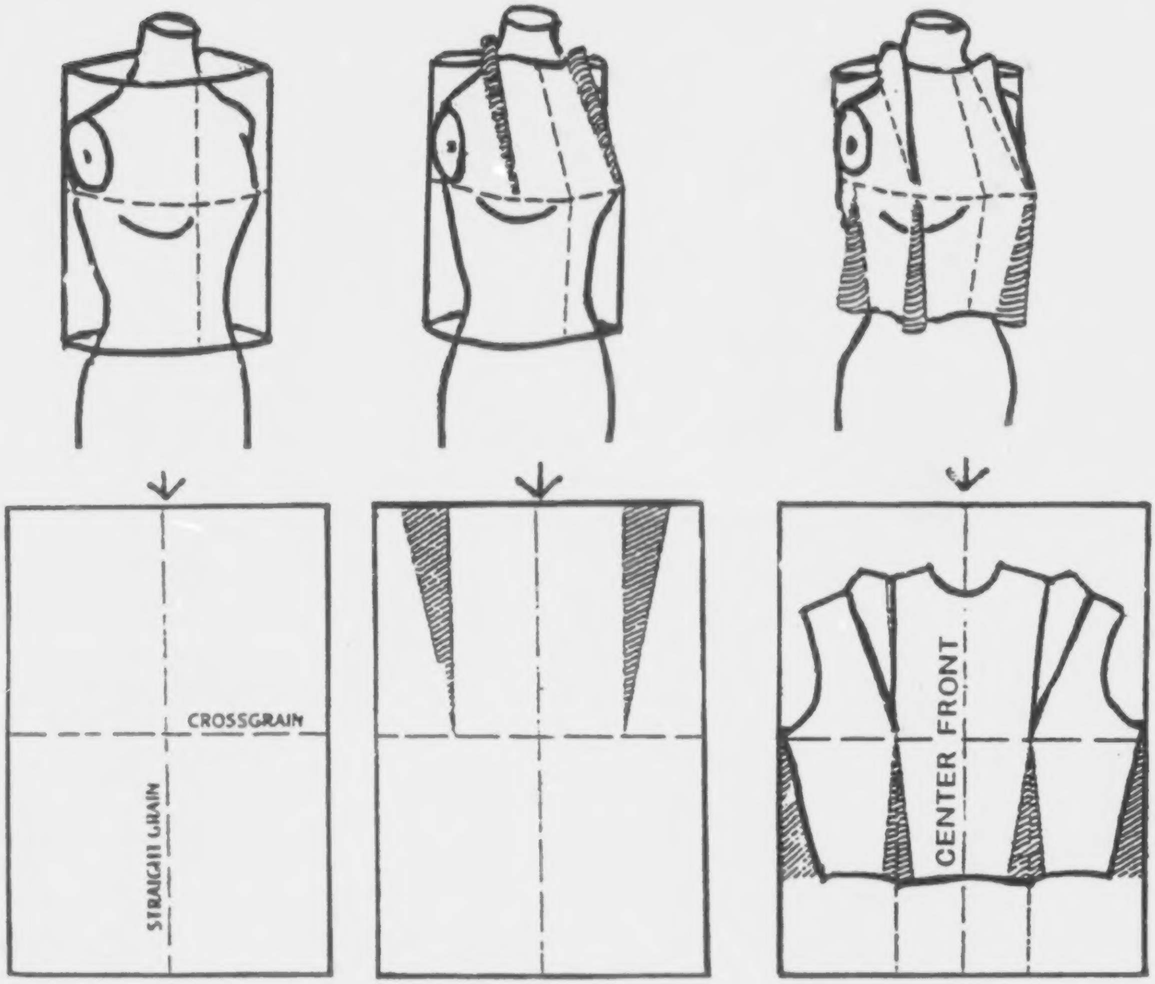
11.  Gathers

12.  Single pleat

13.  Inverted double pleat

OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

HOW A DART STARTS



FABRIC
When fabric is wrapped around a model form at bust level, it forms a cylinder...

SHOULDER DARTS
which will conform to the body above the bust when cones of fabric, called darts, are folded in from the bust to the shoulder...

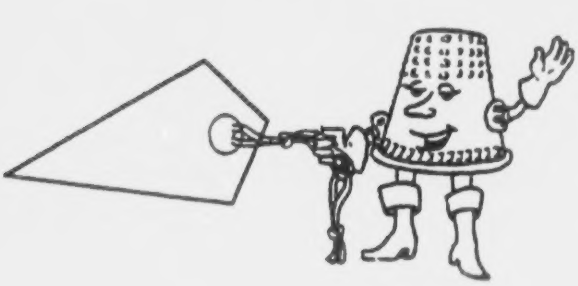
BASIC TWO-DART FRONT PATTERN
and which will conform to the body contour. Waist darts are folded from the bustline to the waist. Side darts later become the lines for the side seams.

The same principle is applied in the back to form shoulder darts and waist darts. When fabric is wrapped around the lower part of the body, waist darts are formed from the hips to the waist, and side darts later become the lines for the side seams.

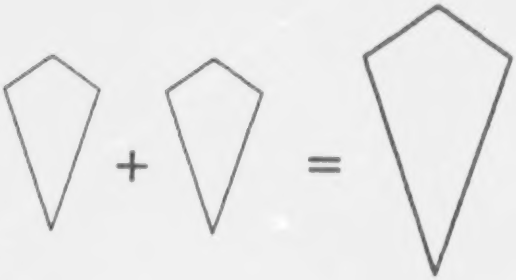
THE DART STORY

DARTS are the designer's greatest asset. They can be used in the ways listed below to create designs and shape fabric.

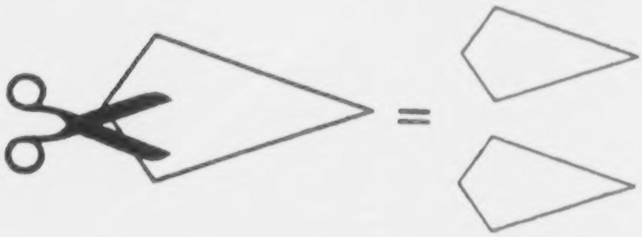
1. Darts can be **MOVED** from one seamline to another.



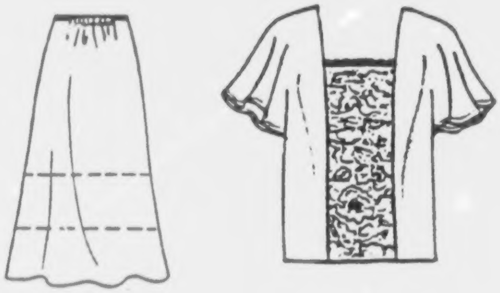
2. Two smaller darts can be **COMBINED** into one large dart.



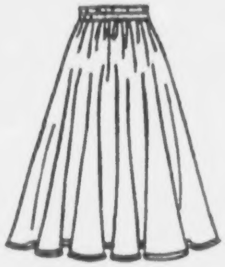
3. Large darts can be **DIVIDED** into two or more smaller darts.



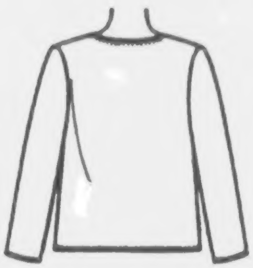
4. Darts can be **CONVERTED** to **GATHERS** and **SEAMLINES**.



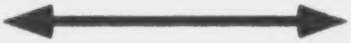
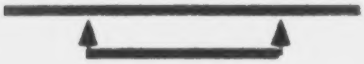
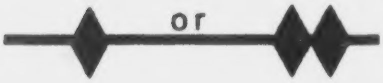
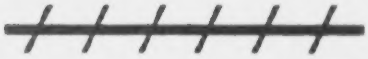
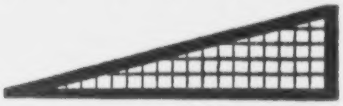
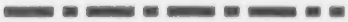
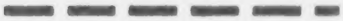
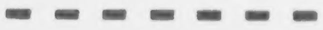
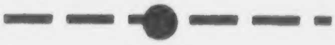
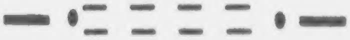
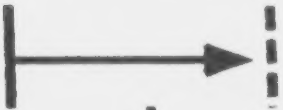
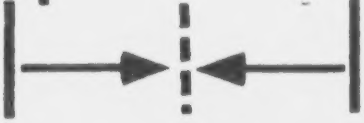
5. Darts can be **CONVERTED** to **FLARE** in skirts.



6. Darts can be **RELEASED** to make clothing that hangs straight.



MARKING THE NEW OR REVISED PATTERN

1.	**CF** **CB**	Center Front and Center Back
2.		Grainline
3.		Foldline
4.		Notches
5.		Slash marks = original line marked out
6.		Cross hatched = original part of pattern not used
7.		Guide line (mark in red)
8.		Stitching line
9.		Top stitching line
10.		Precision points
11.		Gathers
12.		Single pleat
13.		Inverted double pleat
14.	**PANTS FRONT**	Name of pattern piece
15.	**CUT 2**	Number of pieces to cut

Name ______________________ Period ________ Date ______________

PATTERN CHANGES - NO. 1

Directions:

1. Develop new pattern pieces for the assigned pattern changes using the mini-patterns provided. Add new or changed markings as needed. **WORK IN PENCIL**.
2. Label each sample with your name, class period, and sample number.
3. Put samples in order and attach to this sheet. Samples may be stapled to paper and put in a binder.
4. All samples must be handed in and recorded.

SAMPLE ASSIGNMENTS:

1. Dart transfer
2. Dart divided
3. Dart converted to gathers
4. Skirt flare added
5. Skirt dart converted to flare
6. Skirt dart converted to yoke
7. Sleeve fullness added to top
8. Sleeve fullness added to bottom
9. Sleeve fullness added from top to bottom
10. Armhole facing
11. Neckline change (Round to V-neck)
12. Neckline facing change
13. Shirt collar with stand

Name ______________________ Period ________ Date ______________

PATTERN CHANGES - NO. 2

Directions:

1. Develop new pattern pieces for the assigned pattern changes using the mini-patterns provided. Add new or changed markings as needed. **WORK IN PENCIL**.
2. Label each sample with your name, class period, and sample number.
3. Put samples in order and attach to this sheet. Samples may be stapled to paper and put in a binder.
4. All samples must be handed in and recorded.

SAMPLE ASSIGNMENTS:

1. Dart transfer
2. Dart divided
3. Dart converted to gathers
4. Skirt flare added
5. Skirt dart converted to flare
6. Skirt with yoke
7. Straight skirt
8. Gored skirt
9. Sleeve fullness added to top
10. Sleeve fullness added to bottom
11. Sleeve fullness added from top to bottom
12. Collar - flat
13. Collar - stand up
14. Collar - shirt with stand
15. Collar - ruffle
16. Collar - sailor
17. Bodice with yoke
18. Midriff
19. Armhole facing
20. Neck facing
21. Neckline change (Round to V-neck)
22. Neckline facing change
23. Button/buttonhole closure
24. Button/buttonhole facing
25. Flared pant leg
26. Peg pant leg

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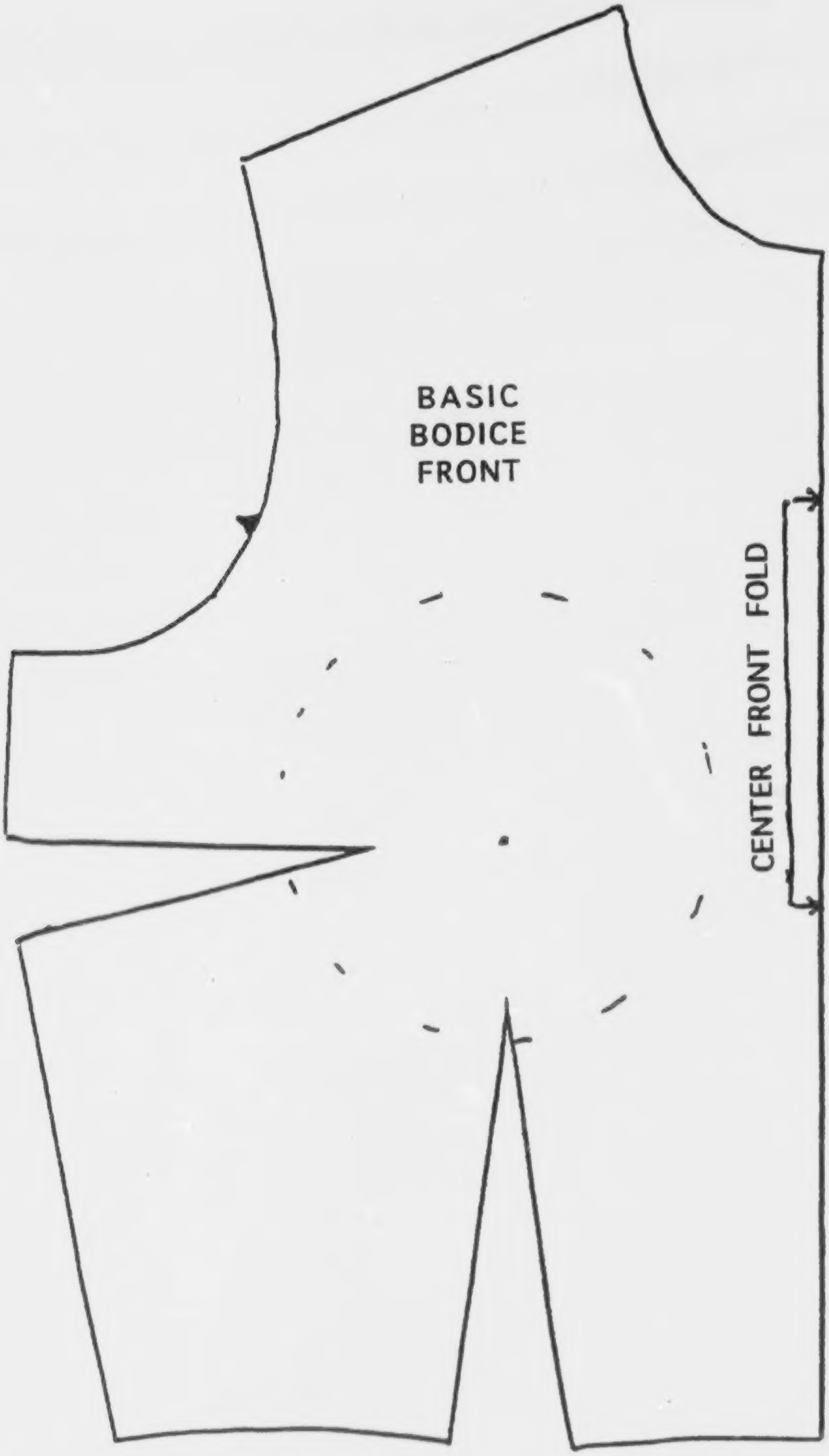
BASIC
BODICE
FRONT
CENTER FRONT FOLD

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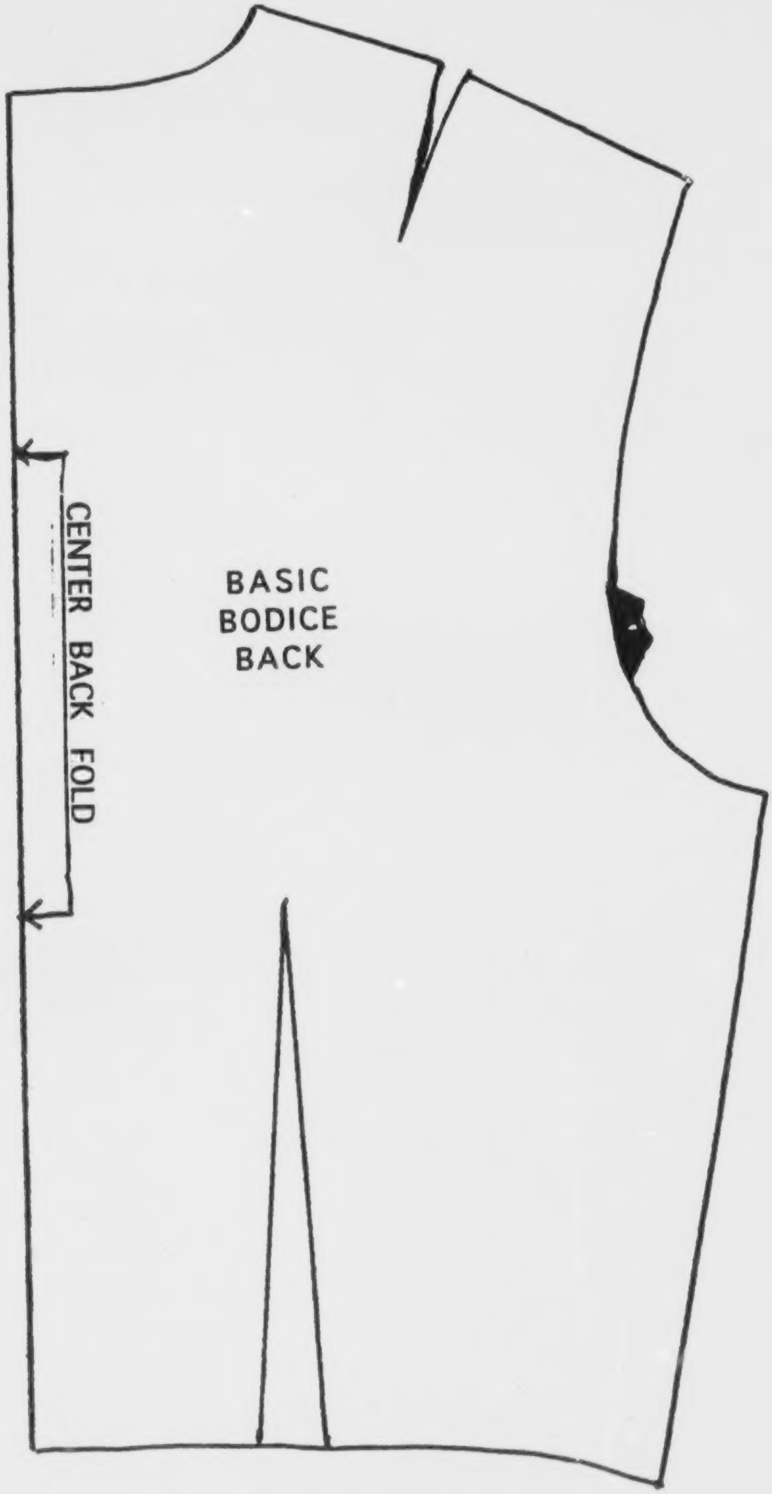
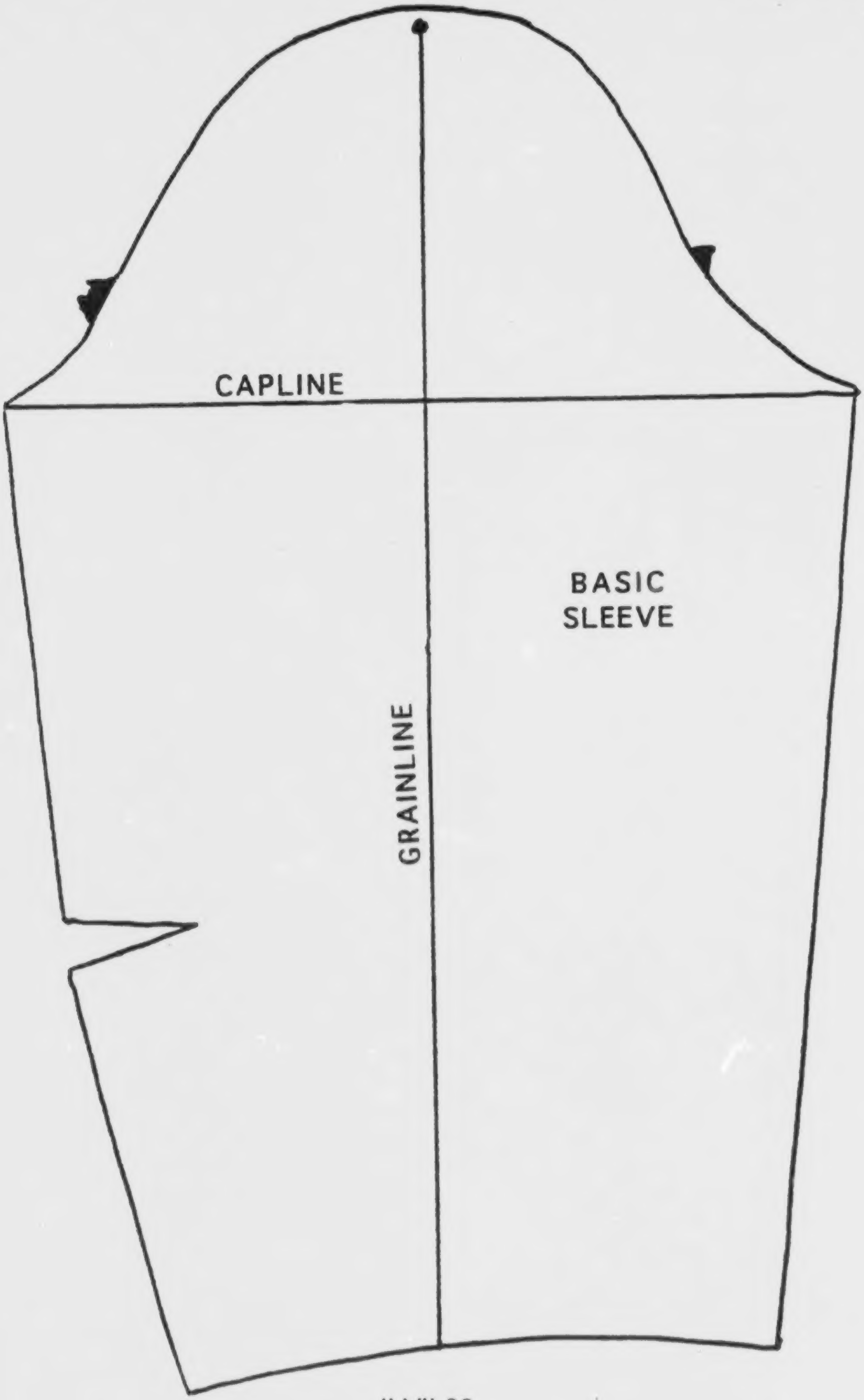

CENTER BACK FOLD
BASIC
BODICE
BACK

◆ ◆ ◆


CAPLINE
BASIC SLEEVE
GRAINLINE

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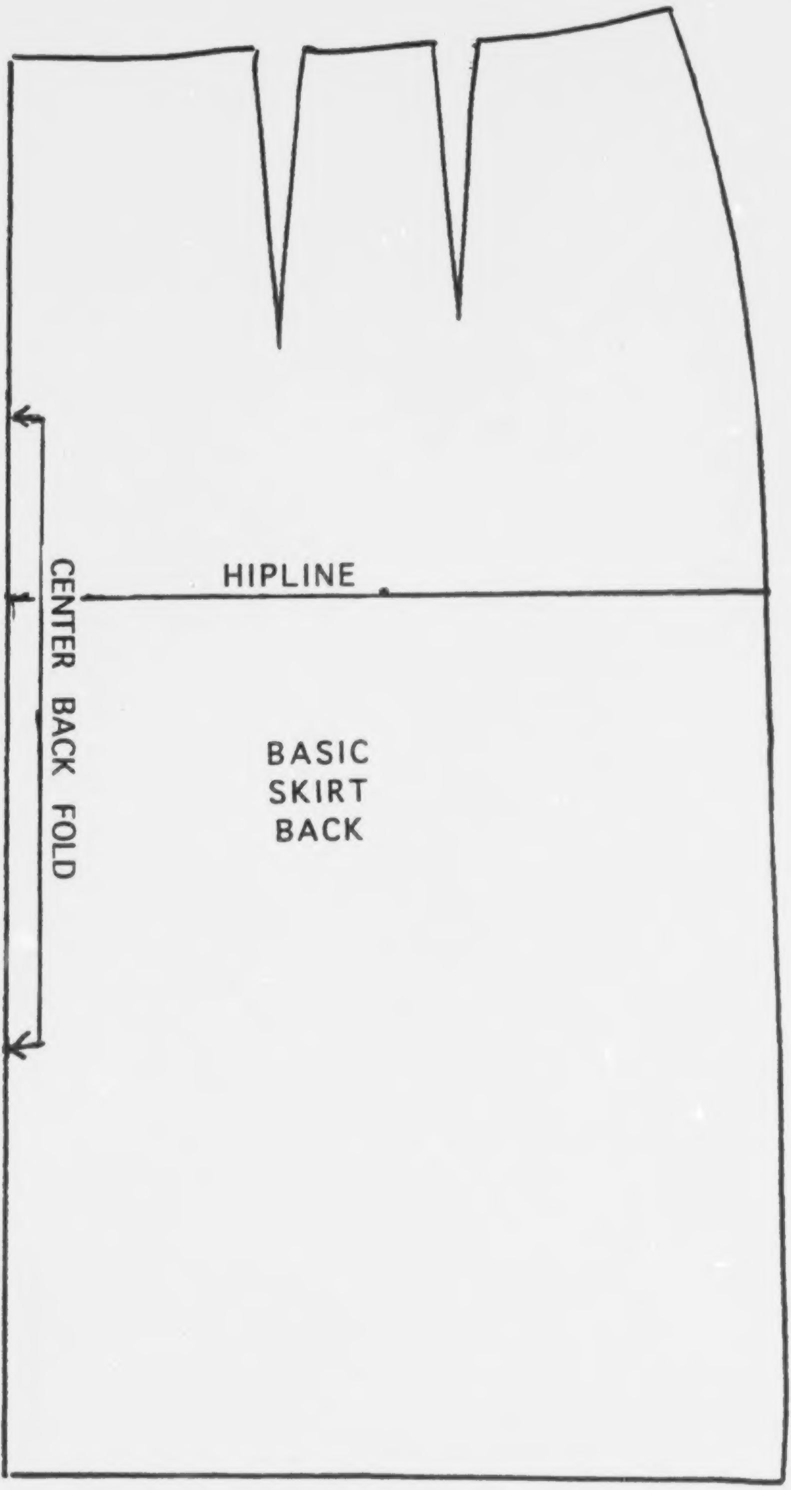
HIPLINE
CENTER BACK FOLD
BASIC
SKIRT
BACK

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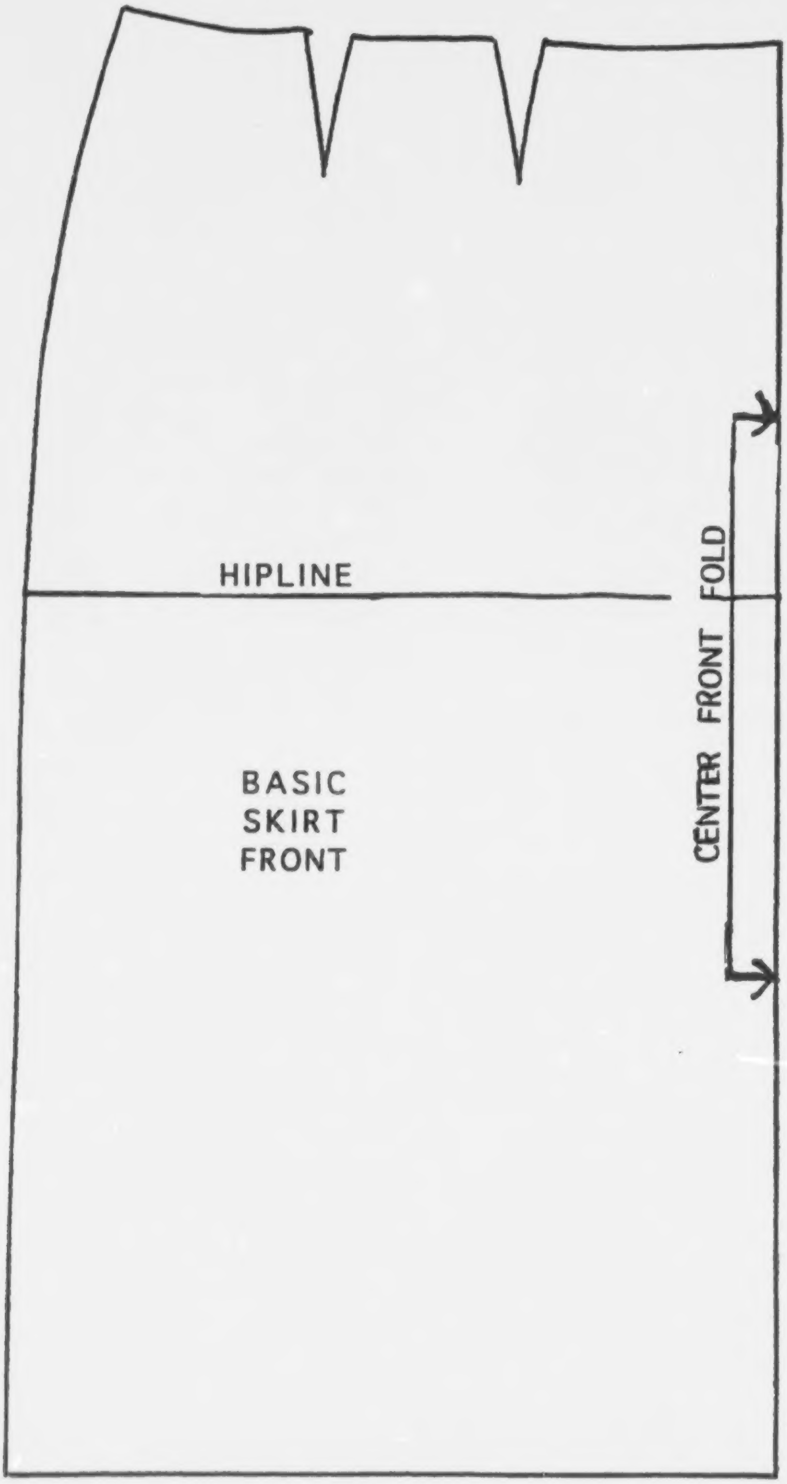
HIPLINE
BASIC SKIRT FRONT
CENTER FRONT FOLD

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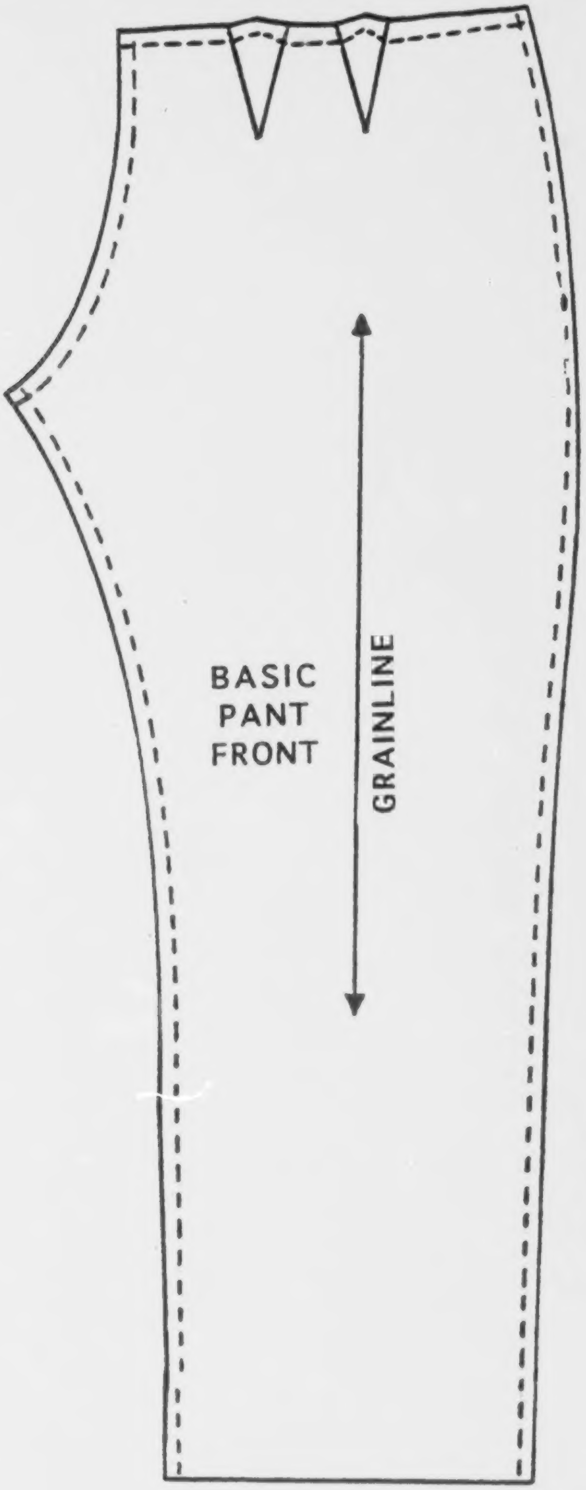
BASIC
PANT
FRONT
GRAINLINE

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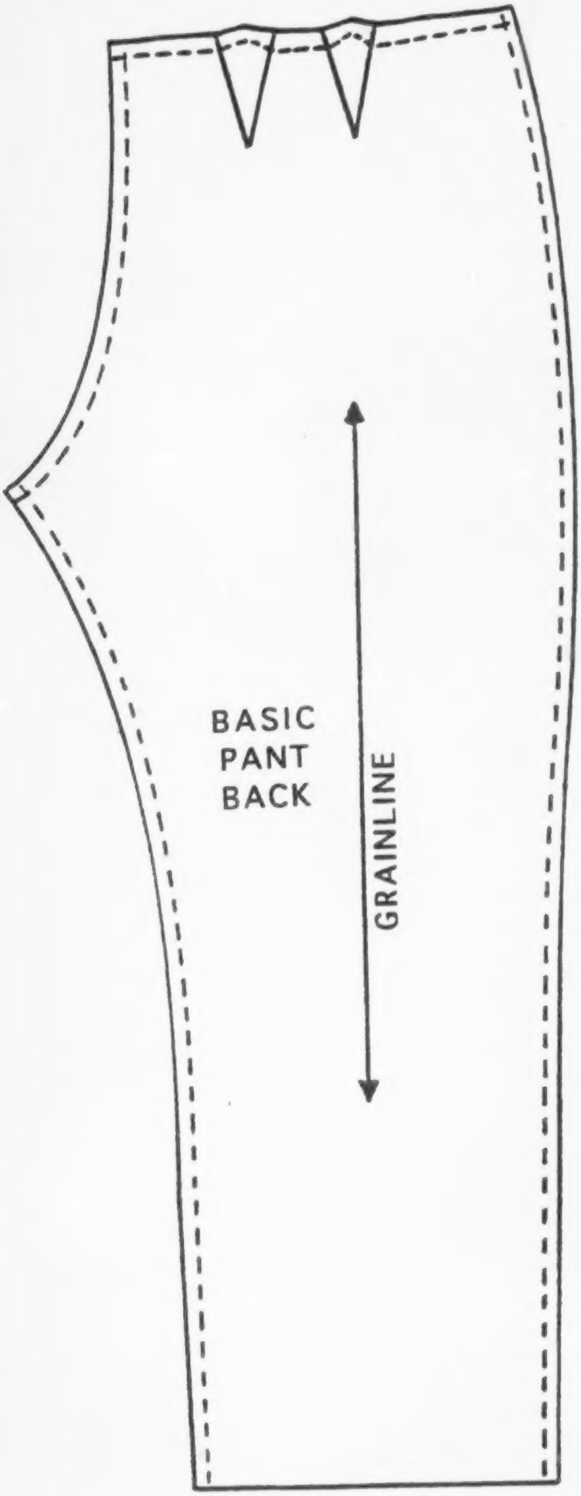
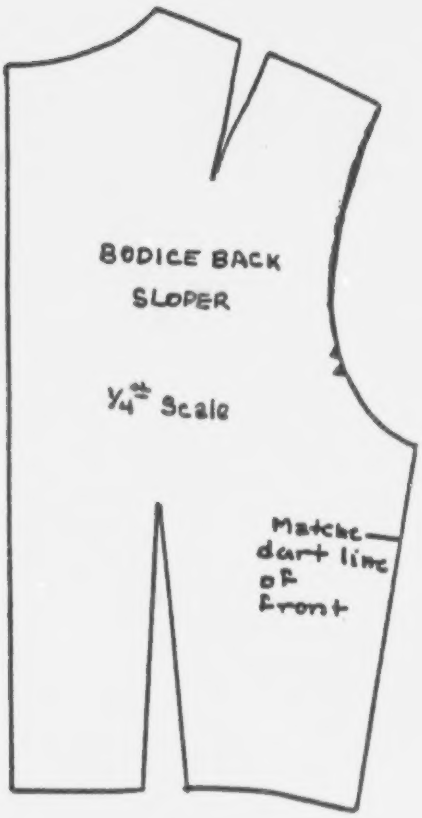

BASIC
PANT
BACK
GRAINLINE

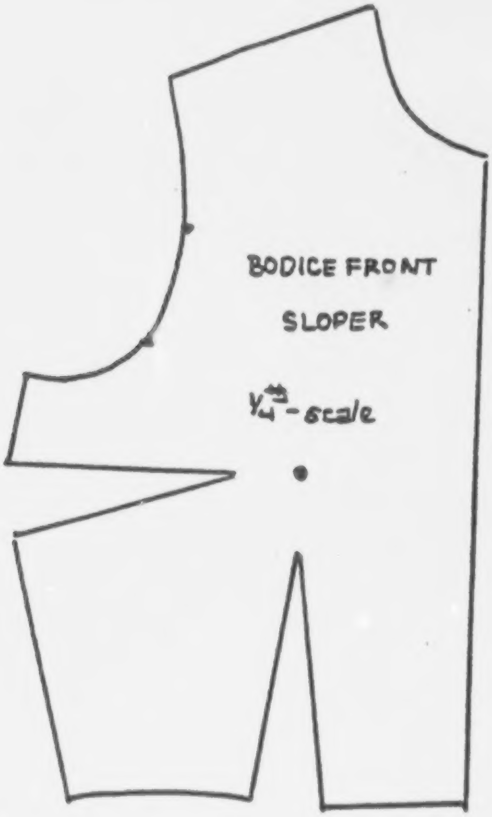
PATTERN DESIGN

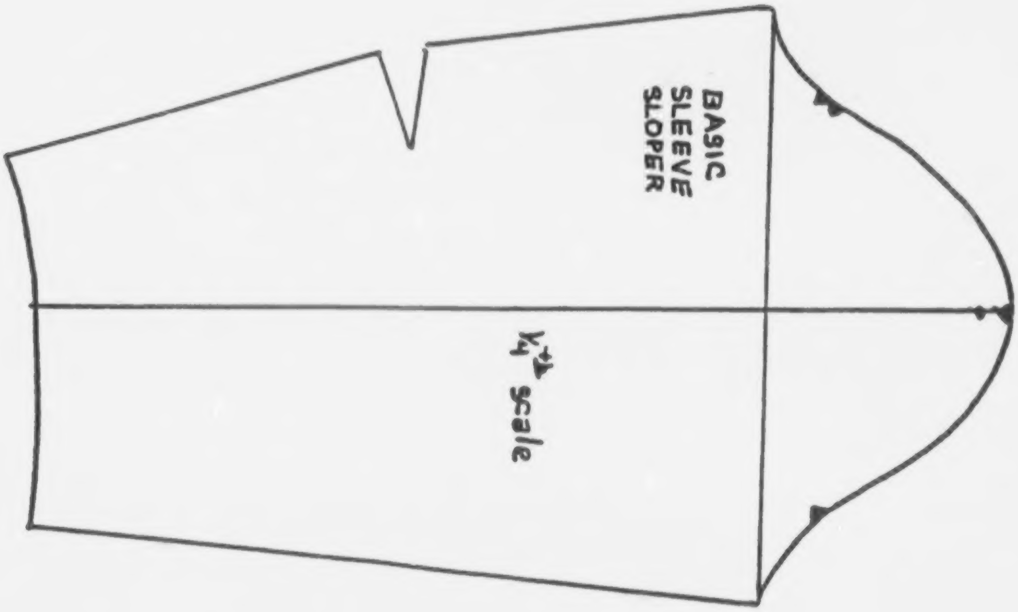
THE ONLY LIMITATION IS YOUR IMAGINATION

Written and Illustrated by Virginia H. Langston

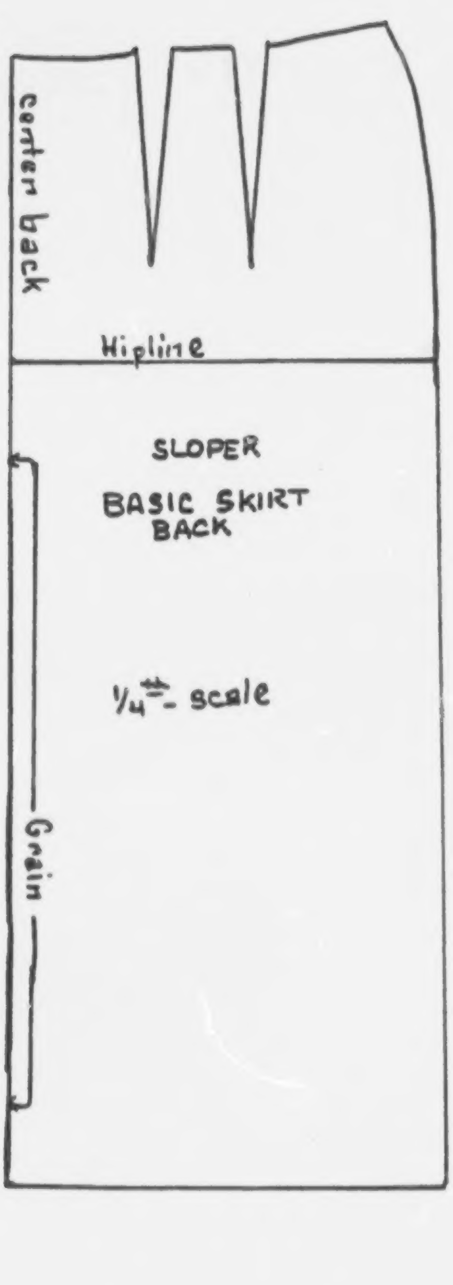
BODICE PATTERNS - 1/4 SCALE

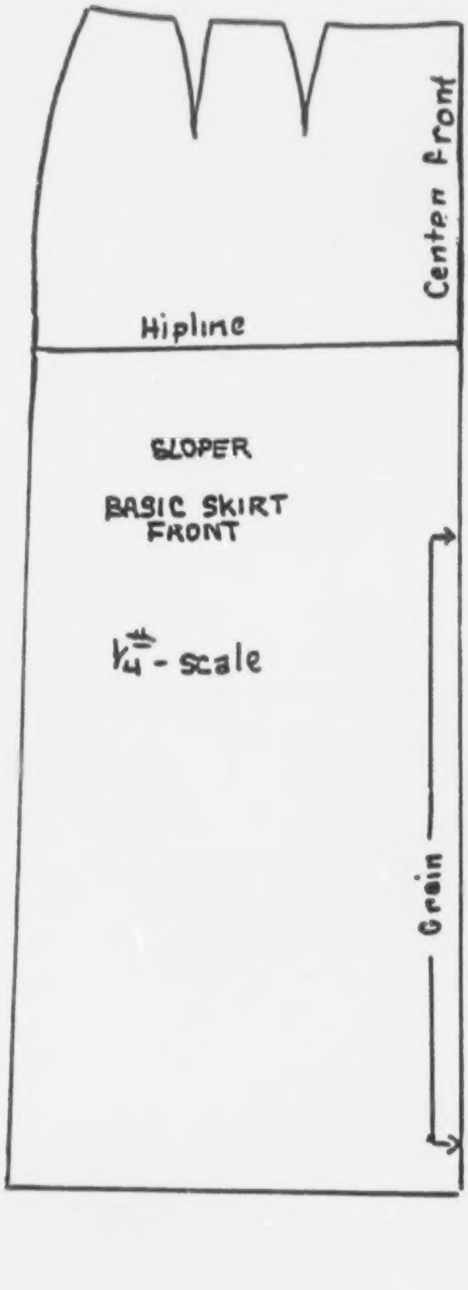

BODICE BACK SLOPER
1/4th Scale
Matche dart line of front


BODICE FRONT SLOPER
1/4th - scale

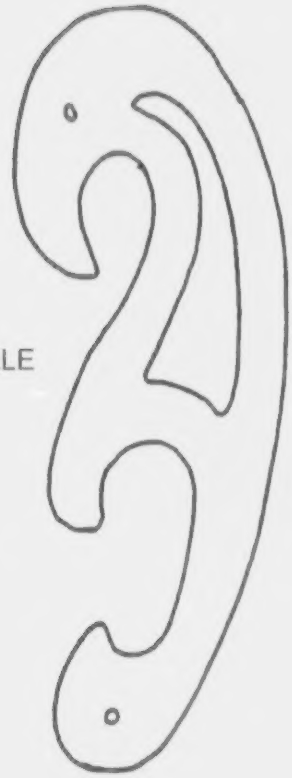

BASIC SLEEVE SLOPER
1/4th scale

SKIRT PATTERNS - 1/4 SCALE

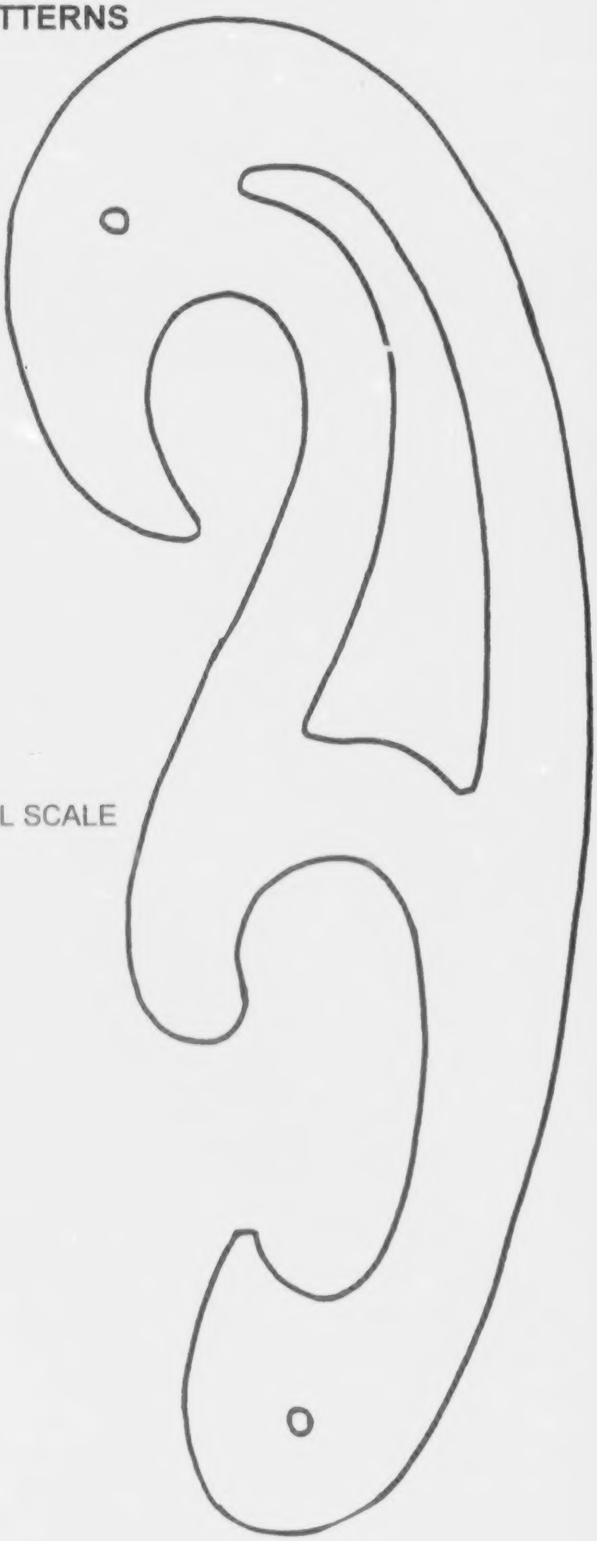

center back
Hipline
SLOPER
BASIC SKIRT BACK
1/4" - scale
Grain


Center front
Hipline
SLOPER
BASIC SKIRT FRONT
1/4" - scale
Grain

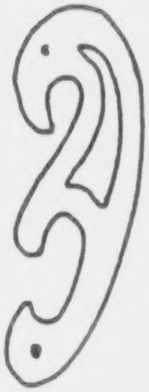
FRENCH CURVE PATTERNS



HALF SCALE



FULL SCALE



FOURTH SCALE

The French Curve

The French Curve is an important marking tool. It is used for marking necklines, armholes, and many other curved areas.

WORDS FOR THE WISE

VOCABULARY:

ALTERATION	a change of form, shape, or size.
ARMSCYE	armhole.
ASYMMETRIAL FIGURE	one having different measurements on each side of the body in one or more locations.
BODICE	the portion of a dress from neckline to wait-line seam.
BUST POINT	the point where a crossmarking of lines indicates bust depth and distance between the bust points on the pattern.
CAP OF SLEEVE	upper portion of the sleeve above the capline that fits into the bodice armscye.
CENTER LINE	a line indicating center back or center front on the pattern piece.
COMMERCIAL PATTERN	any pattern made by a pattern company and sold over the counter.
CURVE	the contour or outline of hip, bust, shoulder, back, etc. This is sometimes referred to as the "bulge."
DART	a shape, fold, or tuck made in a garment or provided in a pattern for this purpose of shaping pattern or fabric to the figure.
SEAM ALLOWANCE	added fabric, or allowance in the pattern or body measurements to ensure ease and comfort and mobility in the garment.
GRAIN	may be the threads running crosswise from selvage to selvage, or the lengthwise threads as the fabric is unrolled from the bolt.
GORE	a set-in section, usually narrower at the top. A skirt may have many sections, each called a gore.
GRAINLINE	direction indicated on the pattern by arrows or lines, showing the relation of the pattern to the crosswise or lengthwise grain of the fabric.
OPENING	the space resulting from "closing and slashing" the pattern.
PARALLEL	lines that are of equal distance from one another.
SLASH	to cut into the pattern on a given line or lines.
TUCK	a fold made in the pattern to decrease it in width or length.

DARTS

PURPOSE OF DARTS:	To permit the fabric of the garment to be "molded" or "shaped" to the curve or contour of the body and to keep grain lines in the correct location.
LOCATION OF DARTS:	These may be located anywhere within the radius of the body curve. Figure 1 shows the well-known waist dart in the front bodice. From this dart any number of darts may be developed, always to accommodate the curve of the bust around which they radiate, as shown by broken lines.

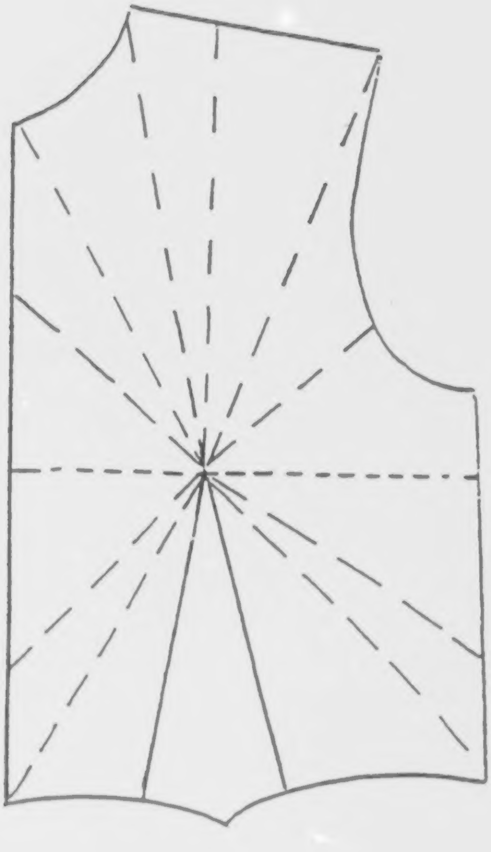
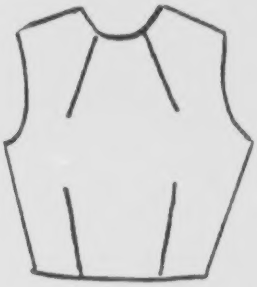
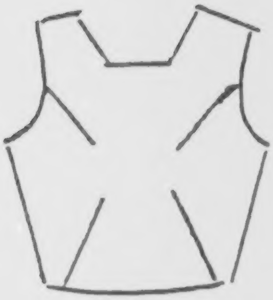
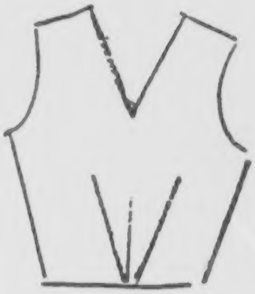
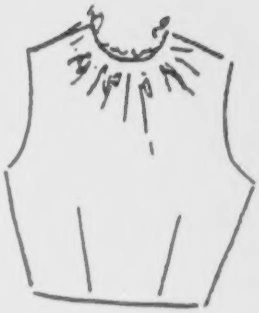


FIGURE 1









Darts are used as fitting darts and decorative darts. Darts can be eliminated in the seamline or put into gathers or tucks.

The size of the dart is determined by the angle at the tip of the dart. As angle becomes larger the "bulge" made by the dart becomes larger.

DARTS

The basic dart for fitting at the bodice front may be moved, divided, combined, or converted to gathers or seamlines by any of two methods: PIVOT or SLASH.

The bust point is the focal point. The bust point is the balance point for the crosswise grain. Locate the bust point by dividing the width of the underarm dart in half. Draw a lengthwise line from the center of the dart through the point of the dart. Repeat for the waitline dart. The two lines meet at the bust point. (Figure 1)

The bust circle encloses the area of the pattern which covers the bust. It is three to five inches in diameter depending on the size of the individual. For work with mini patterns use a radius of ½ inch. (Figure 2)

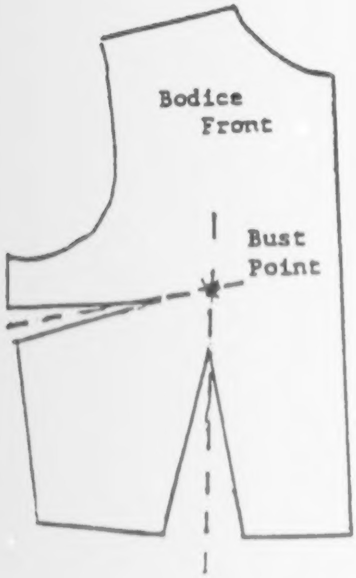


Figure 1

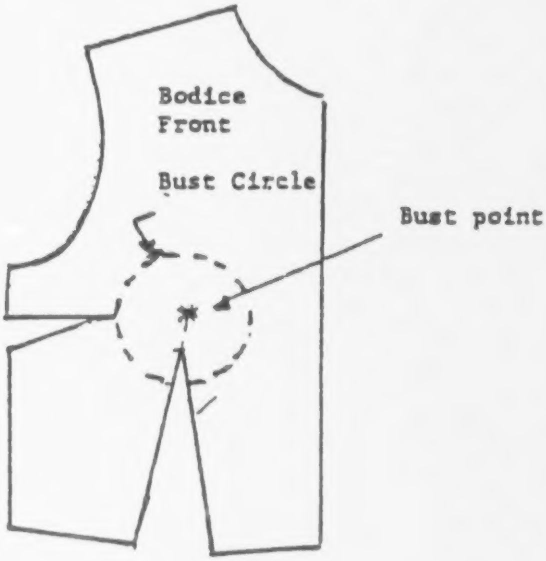


Figure 2

MOVING DARTS BY THE SLASH METHOD

1. Study Figures 1 and 2 and decide which one of the basic darts has been moved to make the design in Figure 1.

2. Use a 1/4-inch scale front bodice pattern, draw a line representing the entire length of the new dart, and continue this line to the bust point. (Dotted line AE in Figure 2)

3. Slash along line AEB TO, BUT NOT THROUGH, the bust point.

4. Slash along the bottom side of the dart to be moved, and continue to slash to the bust point. DON'T CUT THROUGH THE PIVOT POINT.

5. Close the dart by overlapping cut edges until dart line C meets with dart line D at the seamline. Tape the dart closed.

NOTE: There will be some overlapping of the edges beyond the tip of the dart within the bust circle. You are to complete the dart the same as the pivot fold method.

LOCATE THE PIVOT POINT ON THE PATTERN. MAKE ALL SLASHES GO TO, BUT NOT THROUGH, THE PIVOT POINT. IT IS PREFERABLE TO SLASH ALONG THE LOWER LINE OF HORIZONTAL DARTS AND ALONG THE LINE CLOSEST TO THE CENTER FOR VERTICAL DARTS.

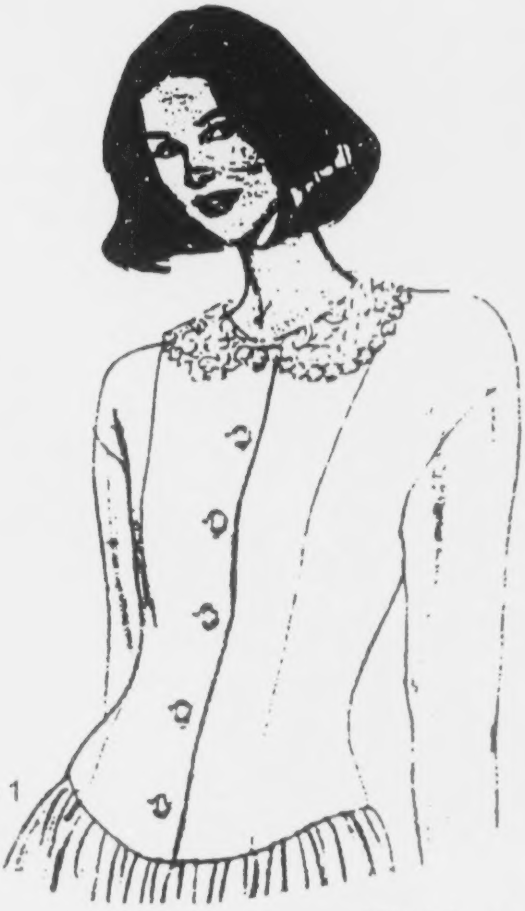


Figure 1

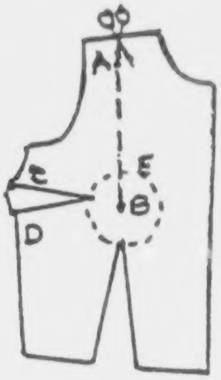


Figure 2

ADDING FULLNESS BY SLASHING AND SPREADING

Gathers may come from two sources: Elimination of darts and/or added fullness (slash and spread). In this lesson, you will add material at various points in order to add gathers and bulk to the silhouette.

DIRECTIONS: (Slash and Spread)

1. Decide where you want to add fullness (See Figure 1). Before slashing the pattern, add notches along the waistline of the bodice and skirt. This bodice has added fullness at the waistline while the shoulder is still smoothly fitted. Transfer the bustline dart to the waistline.

2. Cut the pattern in three vertical slashes **TO, BUT NOT THROUGH,** the shoulder seam. (Figure 2)

3. Spread the slashed pieces apart equally. The amount you spread will be determined by how much fullness you want. Tape to a piece of paper.

4. When you spread out the slashed pattern, some of the pieces will project down further than others. Even up the bottom edge. (This is indicated in Figure 3 with a dotted line along the bottom of the pattern.)

NOTE: Make certain that the distance between each slash is equal.

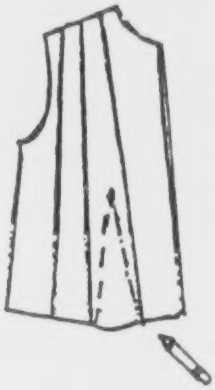


Figure 2

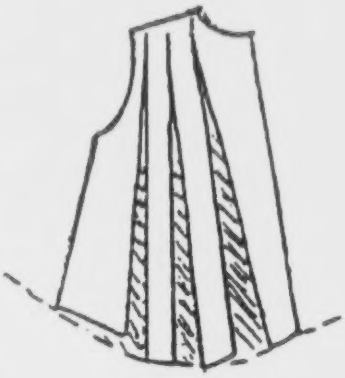
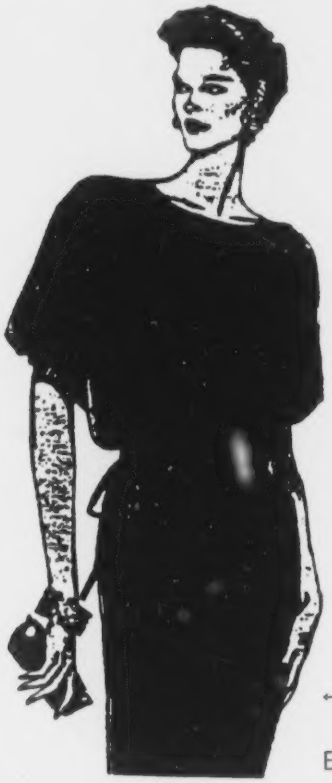


Figure 3



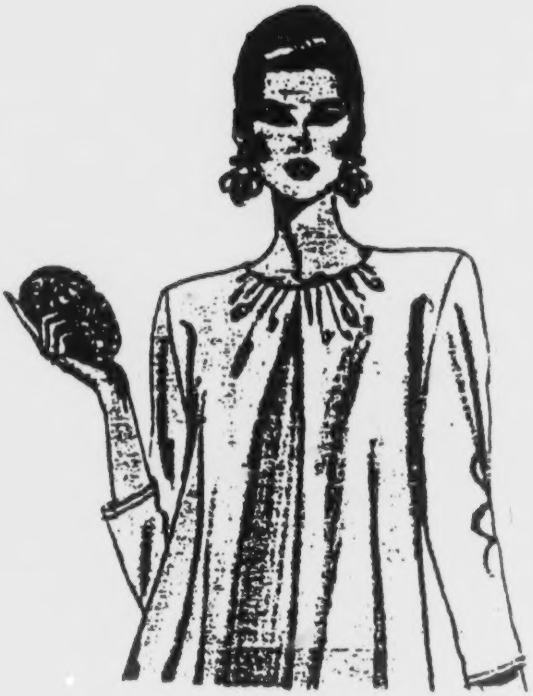
← Figure 1

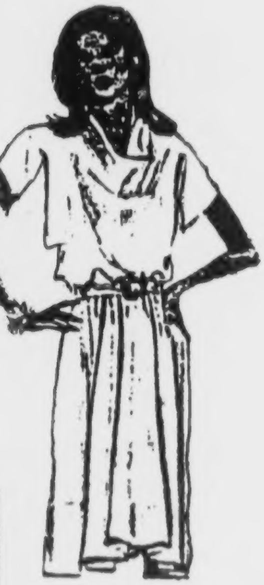
Even up bottom edge of the bodice as illustrated in Figure 3.

CHANGING DARTS TO GATHERS

Transfer bustline dart to neckline. (Figure 1)

Change waistline dart to gathers. (Figure 2)





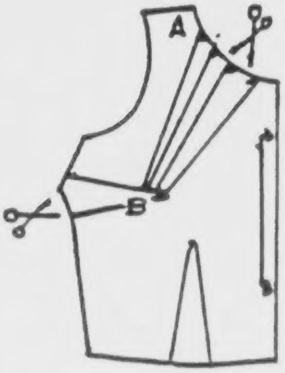


Figure 1

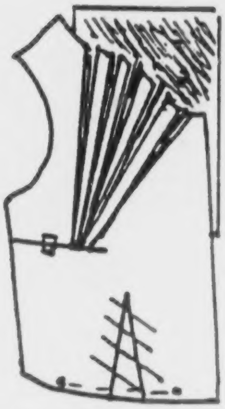


Figure 2

1. Mark four evenly spaced dots along neckline. (A)
2. Draw lines from A down to point of dart. (B)
3. Slash along lines from A to B.
4. Spread pattern apart as you close off bustline dart. (Figure 2)

1. To eliminate waistline dart.
2. Make a dog on each side of Dart to indicate where to gather.
3. Cross out existing waistline dart.
4. Gather between dots.

ELIMINATION OF DART

DIRECTIONS:

1. Decide where you want your gathers. (Note: If you want to eliminate both bust and waistline darts, transfer the bustline dart to the waistline using the slash method.)

2. Place notches where you want gathers to begin and end. (If the bodice was to be attached to the skirt, place corresponding notches on the skirt waistline.)

3. Simply cross out dart and mark gathering lines. (Figure 1)

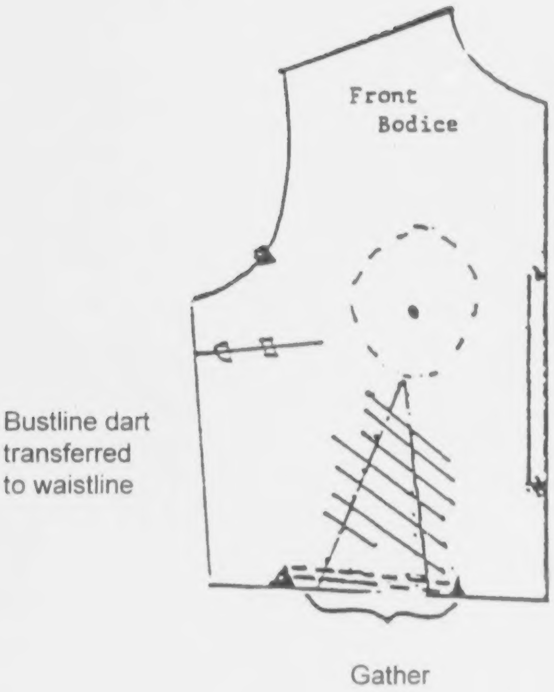
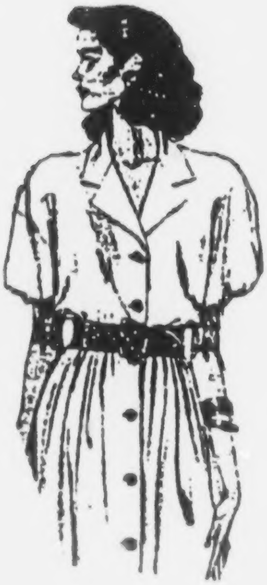
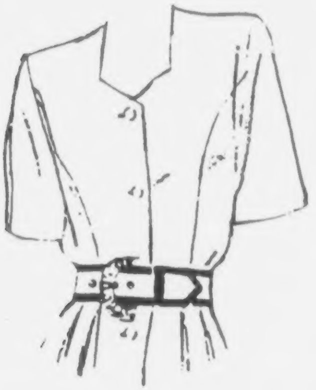

Front
Bodice
Bustline dart transferred to waistline
Gather

Figure 1



PRINCESS SEAMS - BODICE FRONT

1. Design the curved line where the new dart will be located, MB.
   Draw the grain line in the side front area while the dart is still unfolded. Add notches along curved area of seamline.
2. Cut along this line MB, cut along the lower line of the underarm dart to the bust point and close it by overlapping the cut edges until dart line D meets dart line C. Tape shut.
3. Cut out the other side of the waistline dart, along line A.
4. Add 5/8-inch seam allowance along both cut edges of the new seamline.



(Eliminate bustline dart. Convert waistline dart into princess seam.)

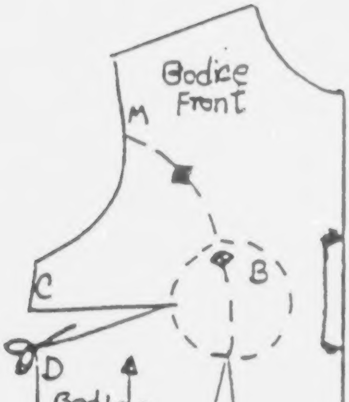


Figure 2

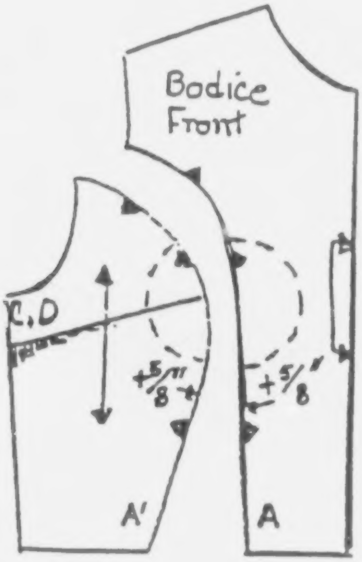


Figure 3

CONVERTING DARTS TO SEAMLINES
BODICE BACK

The slash method for the bodice back is the same as that for the front with the exception of the pivot location. The pivot point for the shoulder dart will be moved from P to P' (Figure 1). This is where the pivot point will fall on the new design line AP'PE.

1. Decide on the new design line. (Figure 1)

2. Move the pivot point. Add grainline to each section. Place notches along the new design line. (Figure 2)

   NOTE: If center back is on the fold, you need not add grainline to that section.

3. Slash new dart line, A to P'. Continue down through line E. Cut off waistline dart line E', making two separate back pieces.

4. Slash along dart line C to bust point P. Then continue to slash to the new bust point P'.

5. Close dart CD and tape.

6. Label all pieces correctly and accurately. Add 5/8-inch seam allowance along cut edges.

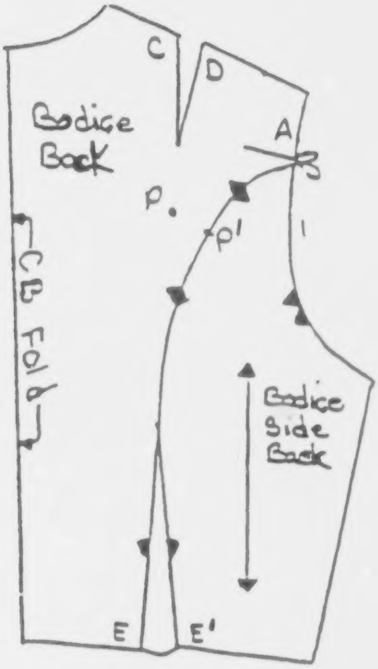


Figure 1

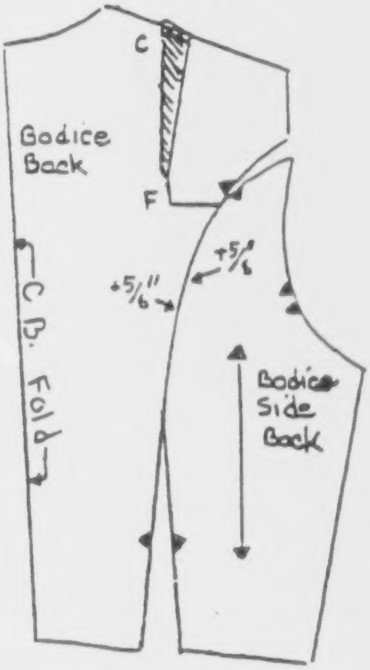


Figure 2

NECKLINES

ALTERING THE NECKLINE

DIRECTIONS:

1. To help determine the shape and location of the new neckline, add dotted lines to the design (Figure 2) to show the bustline, center front, and the original neckline.

   The original neckline can be determined by making a tracing of the basic bodice outline (Figure 1) and superimposing it on the design.

2. Design the new neckline on the pattern, line AD in Figure 2. Separate the old neckline area from the rest of the pattern by cutting along line AD. DO NOT DISCARD IT.

3. Add 5/8-inch seam allowance and notches to the new neckline.

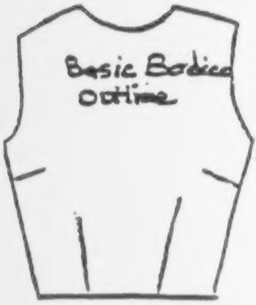


Figure 1

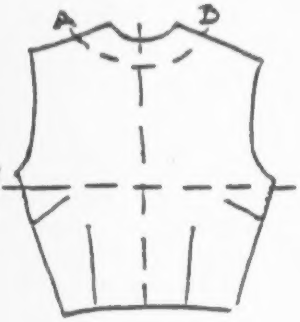


Figure 2

(Remember to alter the back neckline also.)

Note: If you change the neckline, you will also need to change the neckline facing.

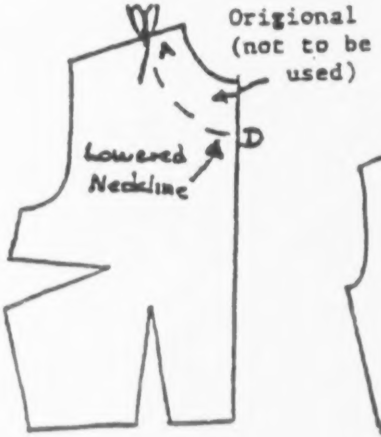


Figure 3

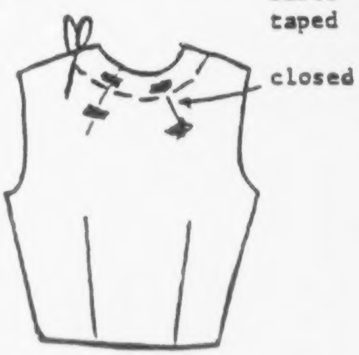


Figure 4

LOWERING THE NECKLINE ACROSS A DART

When the lowered neckline crosses a dart as in Figure 4, the procedure will be modified as directed below.

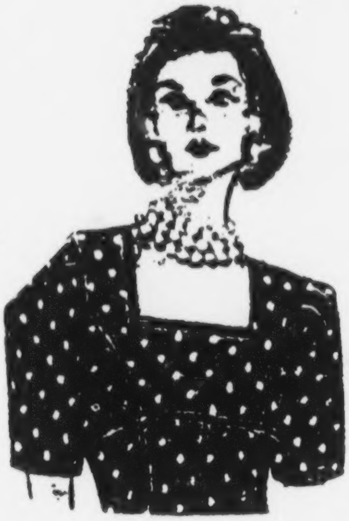
1. Keep the dart taped closed while designing the lowered neckline.

2. Cut the pattern apart on the new neckline while the dart is still folded.

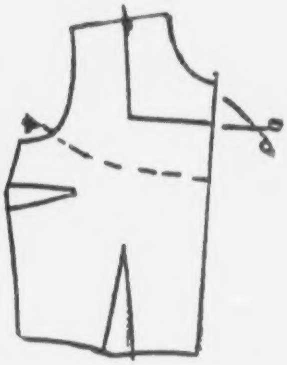
3. Add 5/8-inch seam allowance and notches while the dart is still closed.

NECKLINE VARIATIONS

Square Neckline

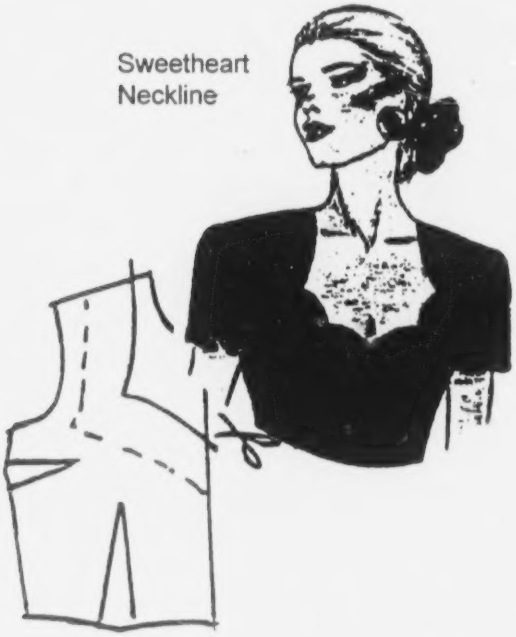


NOTE: Remember to change back neckline and make back neckline facings.

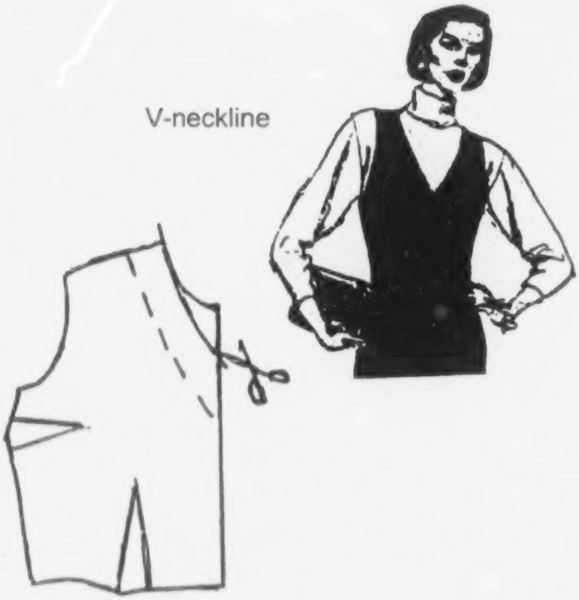


Note: Facings are indicated by the broken lines on the patterns: ---------

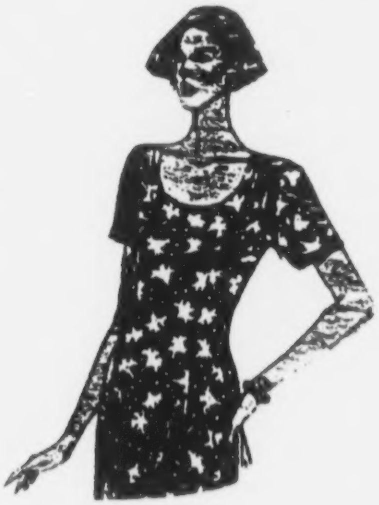
Sweetheart Neckline



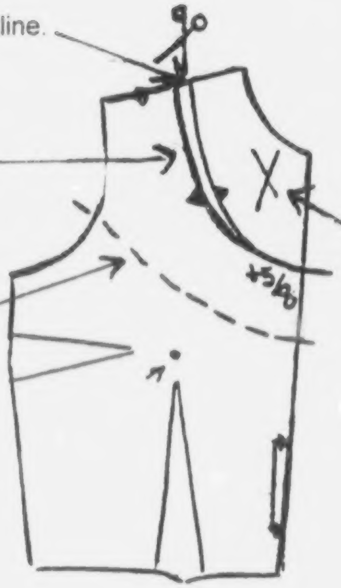
V-neckline



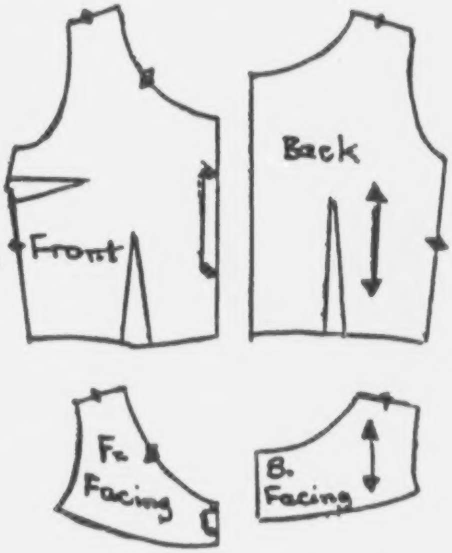
SCOOP NECKLINE

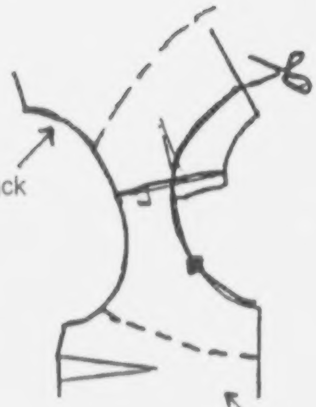


1. Draw new neckline.
2. Mark, cut pattern apart.
3. Draw line for facing.



Finished pattern


Front
Back
Fr. Facing
B. Facing


Bodice back
Bodice front

Remember to change the back neckline also.

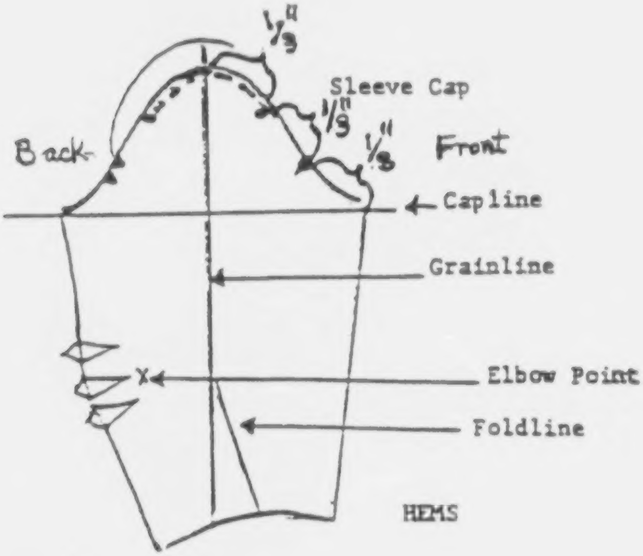
DESIGNING SLEEVES

Study the sleeve drawing and learn the terms given below.

CAPLINE	extend horizontally from underarm to underarm. It separates the upper and lower parts of the sleeve. It is also the crosswise grainline.
SLEEVE CAP	is the part of the sleeve above the capline.
SLEEVE CAP SEAMLINE	is the curved line across the top of the sleeve. The two notches in the back and one notch in the front insure proper location of the ease in the cap seamline.
LENGTHWISE GRAINLINE	is at right angles to the capline. As you can see, it does not go completely through the center of the sleeve. (There may be exceptions to this rule.)
ELBOW DARTS	are fitting darts which create a bulge that gives room for the arm to bend. The elbow comes at the end of the middle dart.

THE SECRET OF A SLEEVE IS TO WORK IN THIRDS.

Note: double notches indicate back of sleeve
single notches indicate front of sleeve



Dots are placed halfway between notches and the top center of the sleeve.

ALL EASE IN THE SLEEVE IS BETWEEN THE TWO DOTS.

PUFF SLEEVE

The puff sleeve is made by slashing and spreading the sleeve pattern at the top or the bottom to add enough length to the seamlines so they can be gathered. The puff sleeve is a short sleeve.

DIRECTIONS:

1. Change the long fitted sleeve to a short sleeve by measuring down from the capline along both underam seamlines and establishing line CD, the bottom line of the short sleeve. It should be parallel to the capline AB (Figure 1). Cut off sleeve. Make facing for bottom edge of the new sleeve.

2. Slash through the cap seamline, as shown in Figure 2, **but not through** the opposite edge. (Note the placement of the slash lines in Figure 2).

2-A. Slashes should occur halfway between the shoulder mark dot, and halfway between the dot and notch (Figure 2).

2-B. Slashes should never be on the center top of the sleeve because this will alter the sleeve and make fitting it to the bodice difficult.

3. Perfect the cap seamline, adding length as shown (add paper). This extra length will make the sleeve puff more.

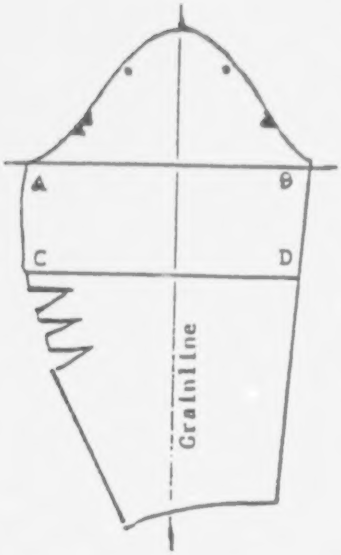


Figure 1

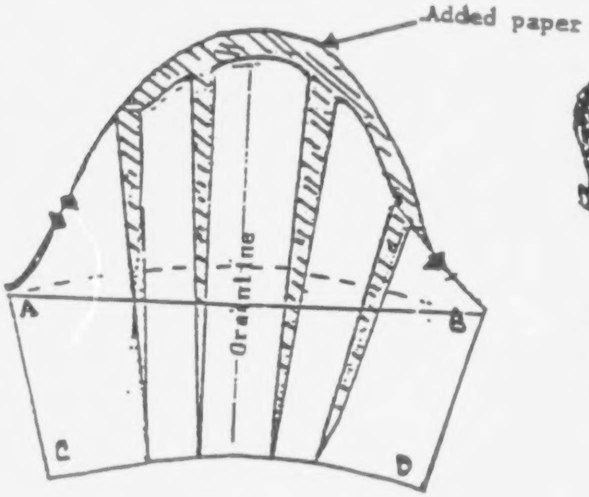
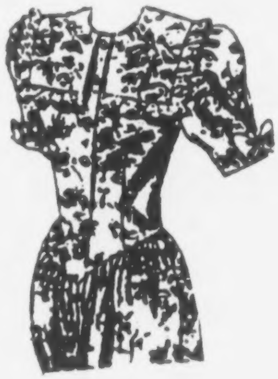
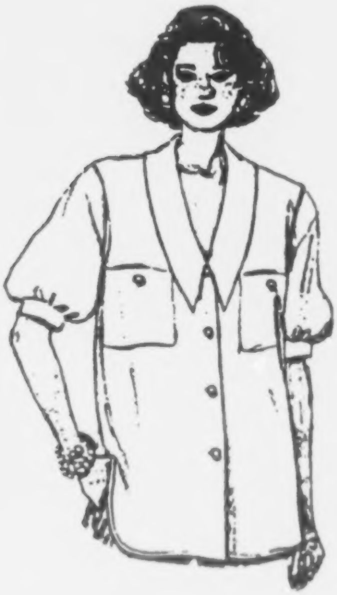


Figure 2



SET-IN SLEEVE WITH BOTTOM FULLNESS



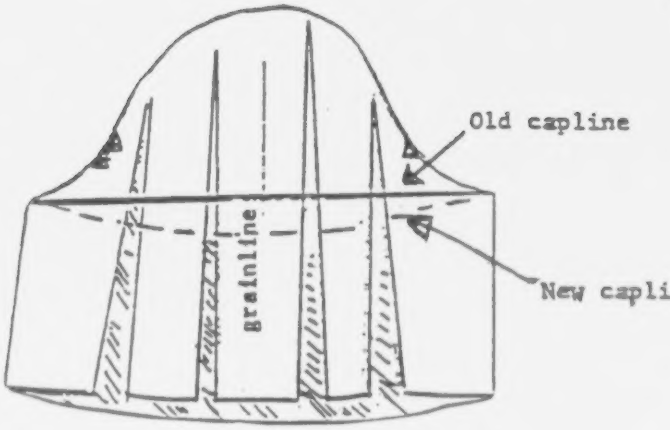


Figure 3

To put the puff at the bottom, the fullness is added at the bottom (Figure 3). Follow directions for puffed sleeve at top. ONLY change directions to the bottom of the sleeve.

TO MAKE THE SLEEVE BAND:

1. Make armband long enough to go around the upper arm (arm girth plus 2 inches). Use the straight of grain in the lengthwise direction. Make it 3 inches wide plus the seam allowance. This makes the band 1 inch when finished because it is folded. The seam allowance will be ½ inch.

2. A variation is to omit the band, narrow the hem at the bottom edge, and run an elastic casing 1½ inches from the bottom edge to form a ruffle look.

PUFFED-SLEEVE VARIATIONS

PUFFED TOP AND BOTTOM (Figure 1)

1. Starting at single notch, draw ten vertical lines. Number each section, 1 to 11. Draw a vertical line through the capline. (Figure 2)
2. Cut along the ten lines. Spread them apart, keeping the vertical line even. Tape to a piece of paper. Redraw the outside lines of the sleeve. (Figure 3)

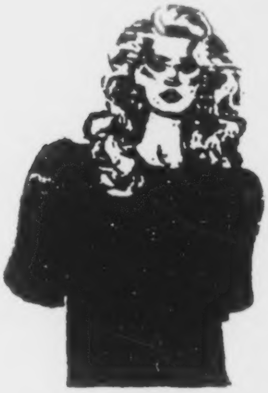


Figure 1

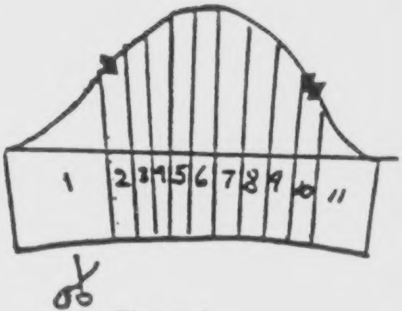


Figure 2

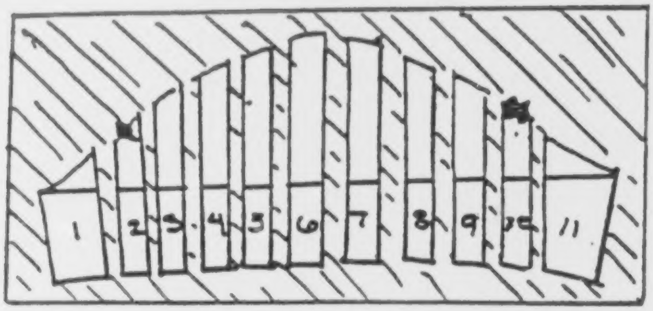


Figure 3

PINAFORE SLEEVE

To make a pinafore sleeve (Figure 4), simply prepare the sleeve for a sleeve with a flare at the bottom. Before cutting apart, cut off the sleeve 2 to 3 inches below the capline. Redraw the bottom edge of the sleeve. (Figure 5)

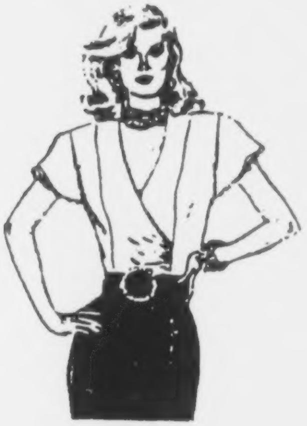


Figure 4

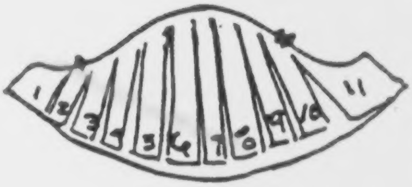


Figure 5

YOKES - BODICE FRONT

A yoke replaces part of the wide end of the dart and permits the remainder to be released as gathers or to be used as a shortened dart.

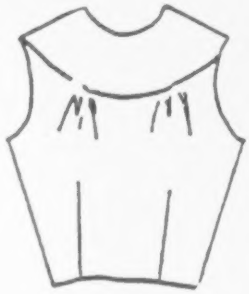
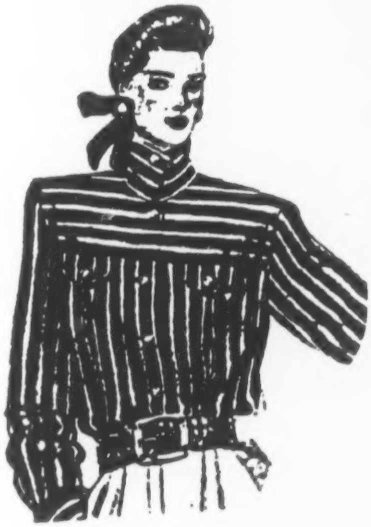


Figure 1

DIRECTIONS:

1. Analyze the design. (Figure 1)
2. Change the underarm dart to the shoulder.
3. Make a basic pattern, folding and taping the shoulder seam line dart closed.
4. Decide on the location of the yoke line. Now draw this line across the already taped dart. (Figure 2)
5. Mark matching notches on the hoke line. These notches will be as far apart as the distance covered by the gathers. Add grainline and 5/8-inch seam allowance.
6. Separate the pattern into two pieces by cutting along the yoke design line while the dart is still folded. (Figure 3)
7. The dart in the yoke will remain closed. Open the dart in the lower bodice and convert it to gathers. (Figure 4)
8. Complete the pattern lines and adding labels.



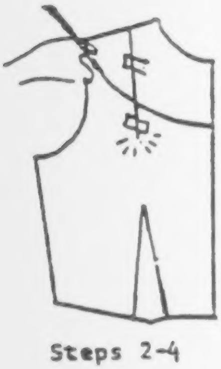


Figure 2

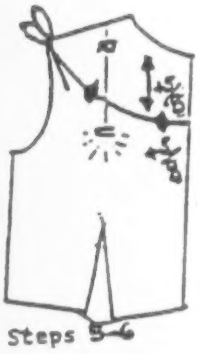


Figure 3

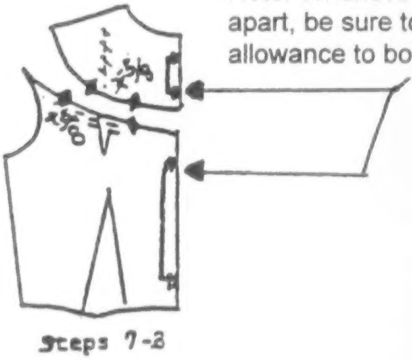


Figure 4

Note: Whenever cutting a pattern apart, be sure to add 5/8-inch seam allowance to both cut edges.

... AND MORE YOKES ... **FOR HIM**

The process for making a yoke in a man's shirt is the same as in a woman's bodice:

1. Determine what you want the yoke to look like. (Figure 1)
2. Draw the yokeline on the pattern. Add a grainline, notches, and a 5/8-inch seam allowance. (Figure 2)
3. Cut the pattern apart.
4. Repeat the process for the shirt back. (Figure 3)

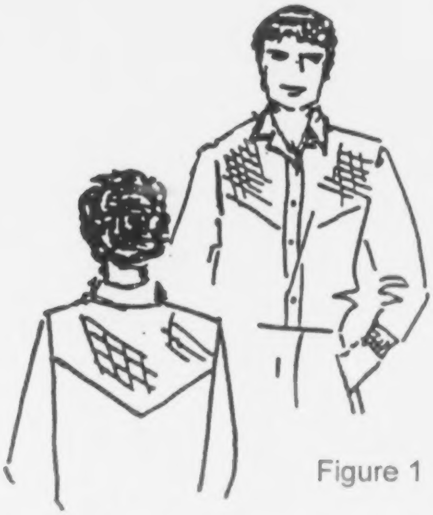
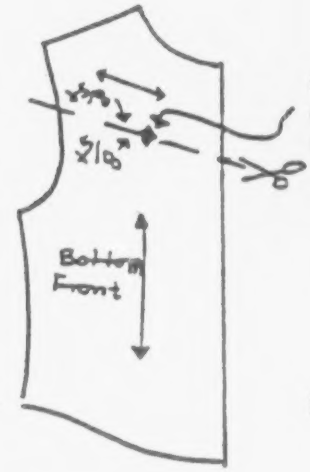


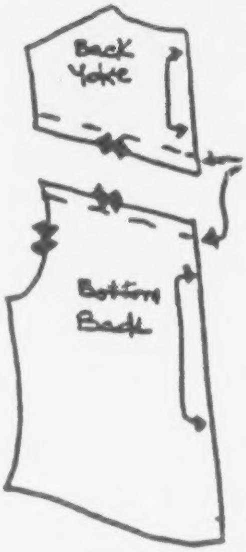
Figure 1

Back



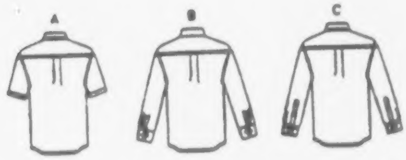
Mark a notch along design line before cutting pattern apart.

Figure 2 Shirt Front



5/8-inch seam added

Figure 3 Shirt Back



FLARED - GATHERED SKIRTS

(Figure 1) This is an attractive skirt shape. It is not found too often in ready-to-wear because it is more expensive to make than the usual gathered skirt. This style looks very nice because there aren't a lot of gathers bunched in at the waistline, yet there is a generous sweep at the hemline. It looks well with fabrics that are too heavy to be gathered very much.

1. Trace skirt front.
2. Mark your slash lines as shown in Figure 2. Number the pieces of your working pattern and cut along the slash lines from hem to waist. Disregard the waist dart.
3. Place the pieces of the working pattern on a large piece of paper (Figure 3). There should be more space between each piece at the hem than at the waistline. For example if you have ½ inch between each piece at the waist, you should have from 1 inch to 1½ inches between each piece at the hemline.
4. Tape pattern pieces in place. Draw your new pattern. Perfect the new hemline.
5. Remove and discard the strips of your working pattern. Mark the center front grainline. Use the same pattern for the front and back skirt.

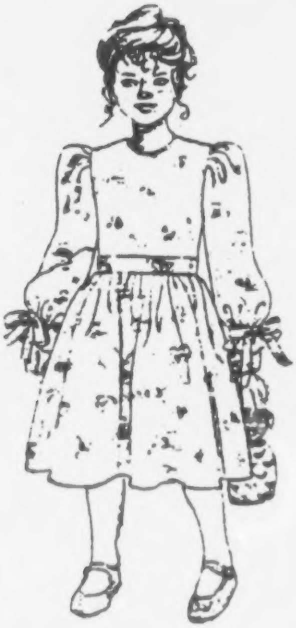


Figure 1

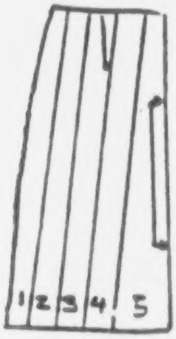


Figure 2

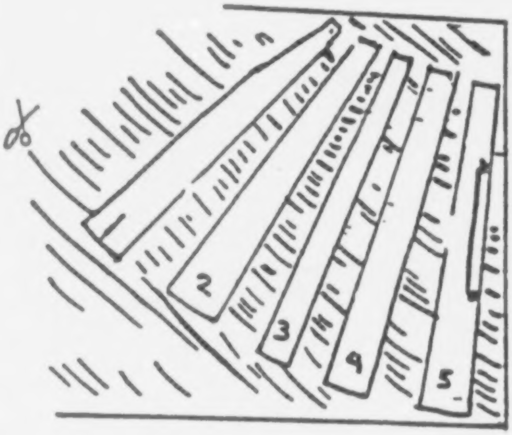


Figure 3

Skirt may be gored by adding seams to front and back skirts (slash and spread) (Figure 4)

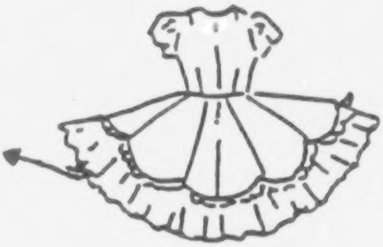


Figure 4

ESTIMATING YARDAGE

In order to eliminate the yardage required for a pattern, it is necessary to lay out all of the pattern pieces, fitted together as closely as possible, on a piece of paper the same width as the material selected. Remember that the fabric is generally purchased folded except some specialty fabrics such as velvet or drapery fabric. End rolls of newsprint are good for this purpose. Just be sure you trim the paper to width to match the width of the purchased fabric.

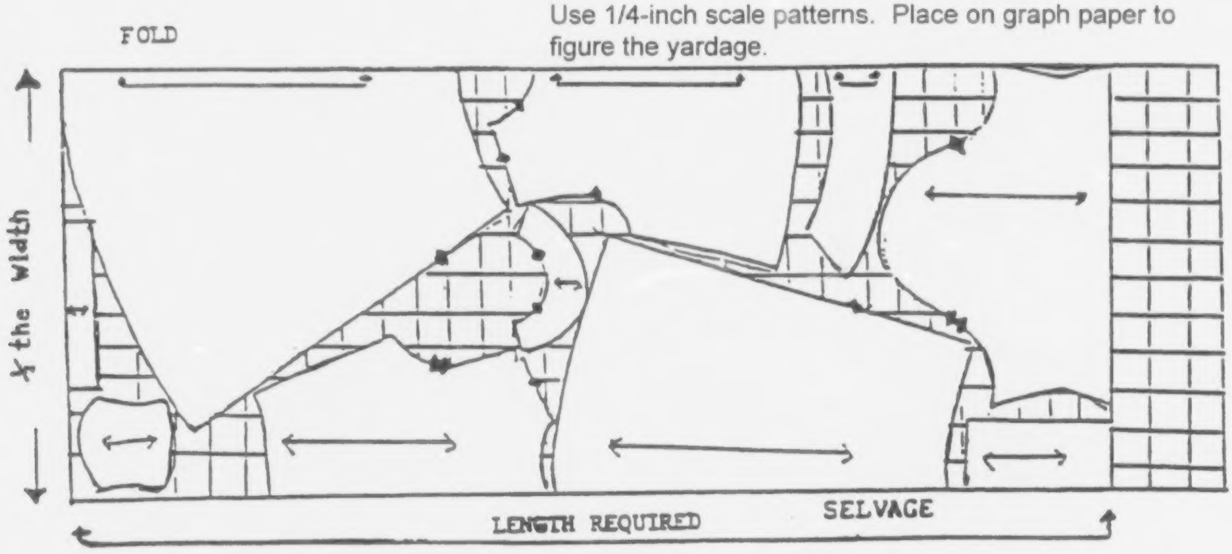
If it is awkward to use a full-sized pattern in your work area, it may be easier to copy your pattern in quarter sizes to estimate yardage. All pattern pieces should have a directional arrow marked on them to show in which direction the piece should be cut.

To determine exactly how much yardage you will need in cutting your garment, lay out all of the quarter-sized pattern pieces on a piece of paper the width (also in 1/4-inch scale) of the material which you have in mind. If your material is folded on purchase, and to cut your garment on the fold, lay the pieces out on a piece of paper half the width of the material (a 44-inch wide fabric folded is 22 inches when purchased). Be sure to mark FOLD on one side and SELVAGE on the opposite side to indicate the fabric is folded in two layers.

When all pieces have been fitted in as closely as possible, with due regard for their proper direction, measure the paper that is required. This amount will constitute your yardage requirements. However, don't forget that you have been working in 1/4 size and that every 1/4 inch is actually 1 inch.

Laying out a pattern on the full width of a goods generally takes a little less material than laying out the pattern on a folded piece of goods. But in cutting a garment one piece at a time, the amount of material saved is seldom worth the extra time and trouble. It is important to remember that when the pattern is cut singly, the second cut **must** have the pattern piece **turned over**. Otherwise, you will be cutting two pieces for the same side of the body. The exception to this is if the pattern, such as a full flared skirt, has been designed so the entire front or back is one piece and would therefore be cut as a single cut.

Use 1/4-inch scale patterns. Place on graph paper to figure the yardage.



ASSEMBLY OF GARMENT

Before cutting into your fabric, pin paper patterns together and try on for size and fit. This will prevent mistakes in cutting and avoid waste of material.

1. Fold material with right side facing and pin pattern pieces into position on material. Mark all details (cutting, line, darts, pleats, pockets, etc.) with pins, tailor tacks, a tracing wheel, or chalk. There are some new marking pencils on the market now. Be sure to allow for seams and hems when cutting (approximately 5/8 inch).

2. Pin and sew darts, style lines, pleats, and yokes.

3. Pin back and front shoulder seams together. Have neck points matching. Now stitch. Shoulder dart should be pressed away from the center; bust dart should be pressed down. **PRESS AS YOU SEW**. This is important to do before sewing across an area that has previously been sewn. It is impossible to remove small tucks that have been sewn in which could have been eliminated by pressing first.

4. Sew in zipper at front, back, or wherever needed.

5. Attach collar, cuffs, pockets, etc.

6. Pin side seams together. Have waistline, underarm, hip, and hem points matching. Smooth out and press.

7. Pin or tack hem. Then slip stitch or do a herringbone hem.

8. Sew underarm seam of sleeve. Use a basting stitch length to stitch a row from notch to notch, leaving a length of thread at each end. Smooth out and press seam. Finish hem area.

9. Pin sleeve into bodice at key points, matching top of sleeve to shoulder line, front and back notches, and underarm seam. Ease sleeve into bodice, pulling ease thread, not too snugly, to fit sleeve into armscye. Do not leave any pleats. Stitch with eased side up, starting at the underarm seam.

   Try this special technique which will help prevent the sleeve from being pulled too tightly into the armscye. Work with the sleeve side up. As you pin, roll the cap of the sleeve over your hand pulling the sleeve slightly over the seam allowance area of the bodice armscye. Then fold back the armscye seam allowance slightly. When this roll is released it aids in putting the fullness of the sleeve where it belongs without strain.

10. For easing, only one row of ease thread is required. For gathered sleeves, sew three rows of machine basting (the longest stitch length) 1/8 of an inch apart in the seam allowance area, putting the center row on the seam stitching line. Pull all three threads at the same time to form equal gathers. When you are ready to stitch the final row of stitching with a regular stitch length, stitch on the center easing thread. When stitching is completed, pull out the easing threads, especially the one that will show on the right side. Hint: If the ease thread is of a contrasting color, it is easier to see in order to remove.

11. Finish any other details on the garment.
12. Give it a final press when you are finished.
    Smile and be pleased with your work.

WHAT KIND OF CARE IS REQUIRED?

The care required needs to be considered in relation to the purpose of the garment. Is the time, energy, and cost involved appropriate to the wear and use of the garment? Fabric finishes and fiber content affect care.

1. Natural fibers (cotton, wool, silk, and linen) take longer to dry because they are absorbent. Natural fibers are not as wrinkle resistant as synthetic fibers.
2. Synthetic fibers (nylon, polyester, acrylic, etc.) wash and dry quickly because they are not very absorbent. They should be pressed with a warm, not hot, iron because they are heat sensitive.
3. Blends of fibers should be laundered or cleaned according to the most delicate fiber in the blends.
4. The method of construction can influence care. For example, knitted fabrics usually have greater resiliency than woven fabrics.
5. Fabric finishes which eliminate ironing and soiling are in demand because of their ease of care.

ANSWER TO THE QUESTION? READ THE CARE LABEL ON THE FABRIC PURCHASED

WHAT ABOUT SHRINKAGE?

The shrinkage given on the label on the bolt end is the percentage of total shrinkage per yard, both in length and width. Two percent shrinkage means that one yard of fabric will not shrink more than 7/10 of 1 inch per yard. This may or may not make a difference to the finished garment.

To be sure that the garment will not shrink, it is always wise to preshrink the fabric before cutting.

If the label does not indicate that the fabric has been preshrunk, the fabric needs to be pretreated by washing or sponging. All washable woolens should be shrunk to relax any stretching that may have occurred in the finishing process of the fabric.

1. For fabrics which will be washed, soak fabric in lukewarm water for a few hours (or put through a cycle in the washing machine) and then dry as you would normally expect to dry the garment.
2. For fabrics which will be dry cleaned, spread fabric on dampened sheet, fold with sheet, and leave overnight. To dry, spread fabric flag being sure grain is straight. (This is called the LONDON SHRINK and is a good way to pretreat woolen fabrics.)

SELECTING FABRICS FOR GARMENTS

HOW DO THE FABRIC AND PATTERN RELATE?

The design, texture, weave, or knit and weight of the fabric, and the lines and details of the garment may influence the final choice. The pattern envelope will help with a list of suggested fabrics on the back.

SUGGESTED FABRICS: cotton, cotton blends, light weight, prints, broadcloth, etc.

CONSIDER THE FOLLOWING:

1. If lines or detail of the pattern are the most interesting part, a plain fabric may emphasize them.
2. Is matching necessary? Will it be easy to match the design at seams in the garment? Will extra fabric be needed to do the matching? Does the design go in one direction?
3. Drape the fabric. Does the fabric have any characteristics, such as bulkiness, which might make it more attractive in one pattern rather than another?
4. Special fabrics, such as leathers, suedes, laminates, and permanent press fabrics, may be better suited to patterns that do not require easing pieces together, such as set-in sleeves.
5. Patterns with circular skirts may sag in some knit fabrics. However, double knits (i.e., they look the same on both sides) offer more shape retention.

WHAT TO LOOK FOR IN FABRICS

One concern is appearance

1. Is the fabric becoming to the person who will wear it? Will it look attractive made up into the garment in mind? The best way to tell is to hold it up in front of a mirror and drape it as it will fall in the garment.
2. Will it be appropriate and pleasing for the end use of the garment?

Other concerns are working with the fabric and its care

3. Do you have the skills to sew on this fabric?
4. How will this fabric behave during construction and once it has been made into a garment?
5. What kind of care does this fabric require?

SPECIAL CONSIDERATIONS IN CUTTING A GARMENT

Prints, stripes, plaids, checks, and pile fabrics all require special consideration in cutting and almost always take more material for a garment than a plain fabric.

Stripes, plaids, and checks must always match with absolute accuracy at openings and seams, and sleeves must match the bodice except where the design is being used specifically in opposing directions. If there are two or more pockets, they, too, must be perfectly matched. It is a good idea to rule in the stripes, plaids, or checks on your full-sized pattern so that there will be no danger of making a mistake when cutting the actual garment.

Some fabrics, such as corduroy, velvet, velveteen, velour, and teddy bear cloth, have a pile surface and have to be cut in one direction. Run your hand over the cloth to determine in which direction the pile goes, and then lay all the pattern pieces on the cloth with the pile going down the garment. If you do make an error and have some of the pieces with the pile going up, you will find that there is a vast difference in the color, as light in reflected in a different manner with the pile going up from the effect of pile going down.

Prints, too, offer problems which must be kept in mind when cutting the garment. Some prints are one way directional and, like pile fabrics, must be cut all one direction. Be sure to cut the pieces the right way, and don't have the print upside down. With large prints, care must be used in placing the motif in strategic spots. Sleeves should match unless you are deliberately placing a motif on one sleeve and leaving the other plain. Care should also be used not to bisect a large design right at the waist. It is better to have one complete motif appear on the bodice and another on the skirt.

Measuring Me

	ME	PLUS EASE	WHAT MY PATTERN SHOULD BE
BUST - taken over the high point of the bust and across shoulder blades in back		2 inches to 3 inches divided around front and back	
WAISTLINE - taken snugly around the natural waistline		½ inch to 1 inch divided around front and back	
HIPS - taken 7 inches to 9 inches below the waist or around the fullest part of the hips		at least 2 inches half in front and half in back	
CENTER FRONT - from the hollow between the collar bones to the waistline			
CENTER BACK - from the bone protruding from the base of the neck to the waistline			
OVER BUST LENGTH - from the middle of the shoulder seam over the bust to the waistline			
OVER SHOULDER BLADES - from the middle of the shoulder seam to the waistline			
BUST POINT HEIGHT - from the highest point of the bust to the waistline			
BUST POINT WIDTH - from bust point to bust point			
SHOULDER BLADE WIDTH - from the prominent part of one shoulder blade to the other			
SHOULDER BLADE HEIGHT - from the prominent part of the shoulder blade to the waistline			
ACROSS THE CHEST WIDTH - from the crease where the arm meets the body to the opposite crease		1/4 inch to ½ inch	
ACROSS THE SHOULDER BLADES WIDTH - from the crease where the arm meets the body to the opposite crease		1/4 inch to ½ inch	
SKIRT LENGTH - from waist to the desired length of the skirt plus hem width			

DYNAMICS OF CLOTHING II

UNIT VIII: *RECYCLING AND ALTERATIONS*

TOPIC A: **REDESIGNING/RECYCLING CLOTHING AND/OR FABRIC**

OBJECTIVE: Students will be able to identify clothing articles and/or fabric that is recyclable as well as ways to use the clothing and/or fabric.

CONCEPT: Recycling clothing and/or fabric can extend personal and/or family budgets. Redesigning can lengthen the life of apparel items, thereby increasing one's wardrobe in size and variety, and/or change the appearance.

COMPETENCIES:

1. Recognize a variety of creative ways to recycle or redesign clothing and/or fabric.
2. Identify the benefits of recycling as it relates to textiles and apparel.
3. Recycle and redesign an article of clothing and/or fabric (e.g., adding an appliqué, handwork, or decorations to an existing article, recycling fabric from an old article into a new article, etc.).

OPTIONS/ACTIVITIES	SUPPLIES NEEDED
1. Daddy's Ties: A Introduction to Recycling/Redesigning	Copy of children's book Recycled and/or redesigned articles of clothing Poster or overhead transparency (II-VIII-7)
2. Creative Reruns	Student items to recycle/redesign Trims, fabric scraps, buttons, etc.
3. Redesigning and Recycling	Classroom set of Clothing textbooks
OR	
Repair, Redesign, and Recycle	Classroom set of Clothes and Your Appearance textbook
4. Recycling/Redesigning Project	Camera and film
5. New Life for Old Sweaters	Copies of directions for students (II-VIII-10 or II-VIII-11)
6. Projects Display	Pushpins, hangers, etc. "Before" pictures Name labels

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OPTIONS/ACTIVITIES

Option 1: **Introduction: Daddy's Ties**

Begin this unit by reading the children's book, Daddy's Ties, to the students. Upon completion, continue introducing the unit by showing the recycling logo to the students and have a brief discussion on the merits of and reasons for recycling. Ask the students to identify types of articles that are recycled. Hopefully, one of the students will name clothing, but if not, the teacher can use the opportunity to introduce the concept of recycled and/or redesigned clothing and/or fabric.

Some of the benefits of recycling clothing and/or fabric are:

- Saves money
- Expands the wardrobe
- Offers the opportunity to be creative
- Prevents waste
- Helps to conserve resources

Some ways to recycle clothing are:

- Passing it on
- Trading it with someone else
- Redesigning the garment
- Recycling the fabric
- Selling the clothing

The teacher will need to have some articles that have been made from recycled clothing and/or fabric, as well as some articles that have been redesigned. (Be sure they look sharp and wearable.) Ask the students if they can tell what has been done. Explain what has been done to each item, the costs involved, and the costs saved. Have the students tell about things they have done or seen done, etc.

If the teacher doesn't have recycled and/or redesigned items around, he/she will need to find someone in the community who has a real knack for doing this. The Family and Consumer Sciences Educators at the local extension office may be able to help identify someone who is good at this.

Assign students to look around home and in their closets and bring to class at least two (2) items that could be recycled and/or redesigned.

Option 2: **Creative Reruns**

Use the items the students bring from home to brainstorm ways to recycle and/or redesign them into something useful. It will be helpful if the teacher has some trims and fabric scraps available to demonstrate how little changes and/or additions can make a lot of difference. Try to get the students' creative juices flowing.

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OPTIONS/ACTIVITIES

Option 3: **Redesigning and Recycling**
Have the students read Chapter 13, Redesigning and Recycling, in the Clothing textbook from Glencoe. There are a number of suggested activities related to this material that could be used.
OR
Repair, Redesign, and Recycle
Have the students read Chapter 12, Repair, Redesign, and Recycle, in the Clothes and Your Appearance textbook from Goodheart-Willcox. Again, there are a number of suggested activities related to this material that could be used.

Option 4: **Recycling/Redesigning Project**
Hint! As the students begin this unit, be prepared to take before and after pictures of their redesigned/recycled items. Have the photos made into slides to use when introducing this unit in succeeding classes.

Assign each student to complete one recycling/redesigning project. These projects should be evaluated on creativity, practicality, use of recycled products, use of design techniques, etc., as well as workmanship. The teacher may or may not want to have the projects approved to be sure they qualify and that learning will occur.

The teacher might want to have a contest to see who can be the most innovative, do the assignment on the least amount of money expended, make the most drastic change, etc. The students can vote on the completed items to determine the winner. The teacher will need to have some kind of reward for the winner.

(To obtain your best results, have each student vote for the two (2) items they liked best. This way everyone can vote for their own plus one more. Otherwise, there won't be any spread of votes.)

Option 5: **New Life for Old Sweaters**
Using the directions provided in the resource section of this unit, students can easily cut an old sweater or sweatshirt down into a child's sweater or sweatshirt.

Option 6: **Projects Display**
If possible, display some of the recycled and/or redesigned projects along with their "before" photos somewhere in the school. Another option is to invite the faculty to vote on the projects. And, it's a good way to get some publicity for the department.

Note: This unit could be done in conjunction with Unit IX: Children's Clothing.

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RESOURCES

Videos

Stretching Your Clothing Dollars, Meridian Education Corp., Dept. H-92, 236 E. Front Street, Bloomington, IL 61701, 1-800-727-5507. Catalog No. 2120.

Textbooks

Clothing, Jeanette Weber, Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004-0543. 1-800-334-3744. Catalog No. 0-02-640161-4. Chapter 13.

Clothes and Your Appearance, Louise A. Liddell, Goodheart-Willcox Company, Inc., 123 W. Taft Drive, South Holland, IL 60473-2089. 1-800-323-0440. Catalog No. 0-87006-844-X. Chapter 12.

Books

Second Stitches: Recycle As You Sew, Susan D. Parker, Chilton Book Company, Radnor, PA.

Daddy's Ties, Shirley Botsford, Chilton Book Company, Radnor, PA.

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EVALUATION/TEST QUESTIONS

1. **Recognize a variety of creative ways to recycle and/or redesign clothing and/or fabric.**

    1. List five (5) ways a person could redesign and recycle an article of clothing.
       - Answers will vary
    2. List five (5) items you could make from old denim jeans.
       - Answers will vary
    3. If you had a tablecloth that had a bad stain on it, how could you use the rest of the fabric? List three (3) ways.
       - Answers will vary
    4. If you had a quilt that had a hole in one corner, how could you use the rest of the quilt? (The quilt has been quilted rather than tied.) List three (3) ways.
       - Answers will vary

2. **Identify benefits of recycling as it relates to textiles and apparel.**

    1. List five (5) benefits of recycling as it relates to textiles and apparel.
       - Saves money
       - Expands the wardrobe
       - Offers the opportunity to be creative
       - Prevents waste
       - Helps to conserve resources
    2. Three (3) ways to recycle clothing are:
       - Passing it on
       - Recycling the fabric
       - Selling the clothing

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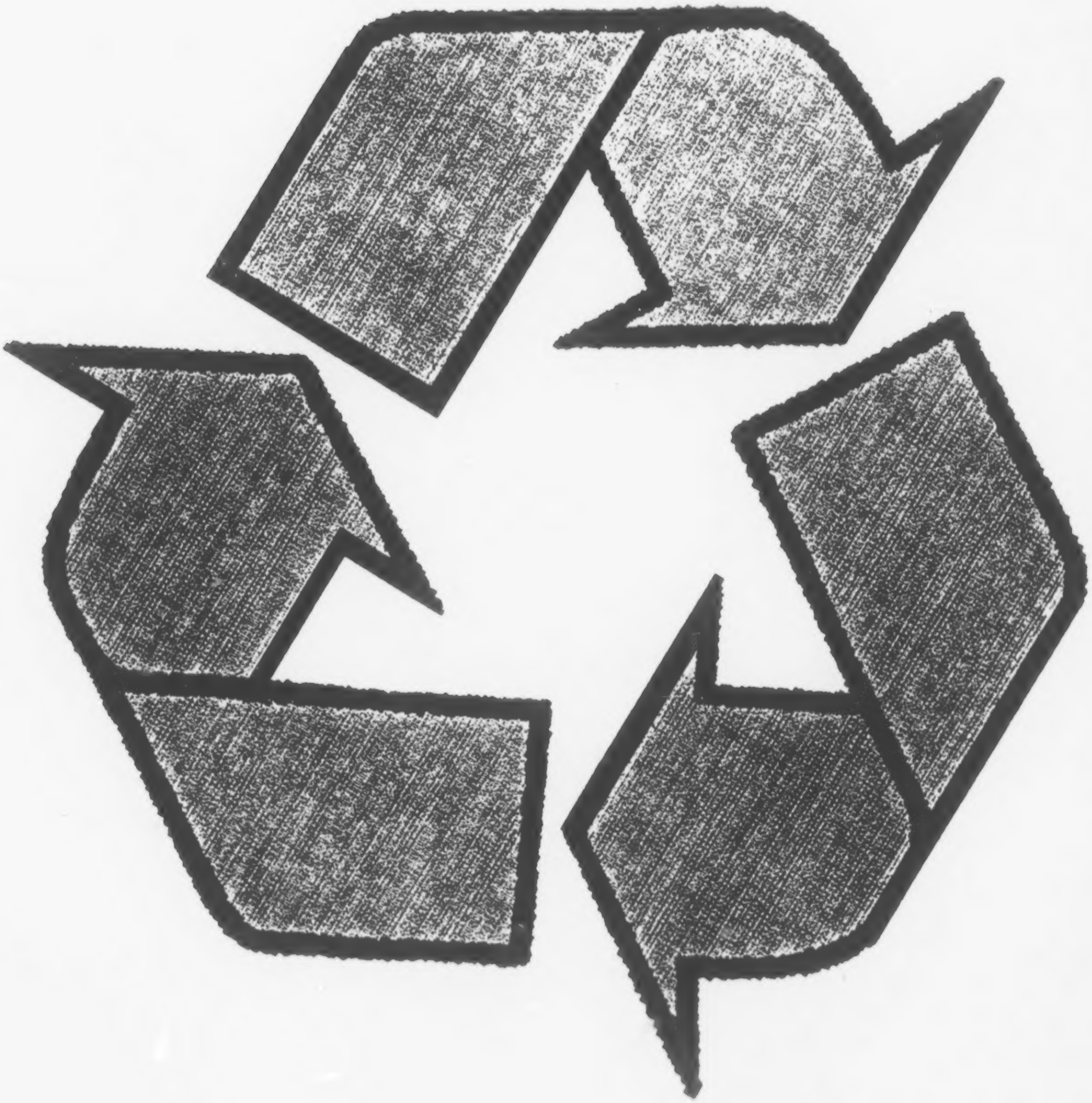
RECYCLING SYMBOL



CREATIVE RERUNS

FROM:	TO:
Quilts	Baby quilt, vest, totebag, jacket, pillows, stuffed animals
Quilt tops	Skirt, vest, tablecloth, pillow covers
Old jeans	Quilt, totebag, children's clothing, vest, stuffed animals
Skirts	Vest, totebag, placemats, children's clothing
Blankets	Jackets, quilt batting, smaller blankets, stuffed animals
Towels	Lap quilts for convalescing patients, doll blankets, wash cloths, beach bag, burp towels, shower wrap
Sweatshirts	Children's sweats, vest, stuffed animals, baby bunting
T-shirts	Children's T-shirts,
Shirts/blouses	Quilt pieces
Leftover pieces of fabric	Quilt pieces, children's clothing, gift items, placemats
Sweaters	Children's clothing, mittens, hats

CREATIVE RERUNS - PAGE 2

PROBLEM:	**CURE:**
Pants are too short	Change to a new fashion length. Press out cuffs to lengthen. Make knickers or shorts.
Sweater goes out of style	Make into a vest by removing sleeves and crocheting border around the armhole.
Sweatshirt has lost its shape	Stitch casings along top and bottom of ribbing. Add elastic or drawstrings at the waist and cuffs inside the ribbing.
Pant legs are too flared	Restitch the side seams of each leg to taper desired.
Skirts are too short	Add a ruffle. Add a band of contrasting fabric. Add trim.
Shirt cuffs become worn	Make short sleeves. Remove and make roll-up sleeves.
Spots have ruined a top	Cover with pockets if possible. Cover with trim or contrasting fabric. Cover with appliqué.
New hem length leaves old one showing	Cover hemline with flat trim or decorative stitching.
Article fades or discolors	Restore color with dye. Decorate with fabric painting. Tie dye and camouflage fade.
Sleeves are too short	Add band of contrasting fabric in sleeve. Remove cuff and make roll-up sleeves.
Knees are worn out	Make shorts. Appliqué a fun patch over worn out area.

NEW LIFE FOR OLD SWEATERS - CARDIGAN VERSION

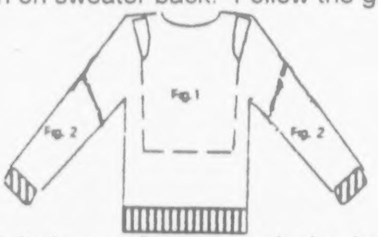
Directions: Read entire page of instructions before cutting.

1. Cut the pieces of the adult sweater apart: front(s), back, sleeves, and ribbing. Cut ribbing off the bottom, single layer at a time. Lay sweater pieces flat on table, buttoning the front of the sweater together, if needed.

2. Use a pattern (could be sweater, shirt, blouse, or vest pattern) in the child's size as a guide for cutting. Plan for 1/4-inch seam allowances.

3. Lay front pieces of pattern on sweater fronts with neck edges together (fig 1). (It usually isn't necessary to change the size of the neck of the sweater.) When cutting bottom of new sweater, try to cut between buttonholes so it won't be necessary to make new buttonholes. Cut along pattern lines, leaving 1/4-inch seam allowance.

4. Lay back piece of pattern on sweater back. Follow the guidelines in the previous step.



5. Lay sleeve pattern on adult sleeve of sweater, placing bottom of sleeve pattern at the bottom of the sweater sleeve. DO NOT cut sweater sleeve with a curved top as in regular sleeve pattern because it will cause unwanted bulk and puckers. Cut the sleeve top in a diagonal line as indicated by fig. 2 above. Don't change the contour of underarm seams. Cut the excess sleeve fabric from underside seam rather than the topside seam. (The underside is generally the most worn.)

6. Place the ribbing along the bottom of the small sweater to see if it is too long or too wide and adjust as needed. Cut off the ends so it is the same size of the sweater, and cut narrower if needed.

7. For the seams, use a straight stitch first, then serge or overcast with a zigzag stitch. Sew all seams 1/4 inch wide.

8. Sew shoulder seams first.

9. Sew sleeves onto body of sweater.

10. Sew underarm (sleeves) and side seams.

11. Sew ribbing around the bottom of the sweater.

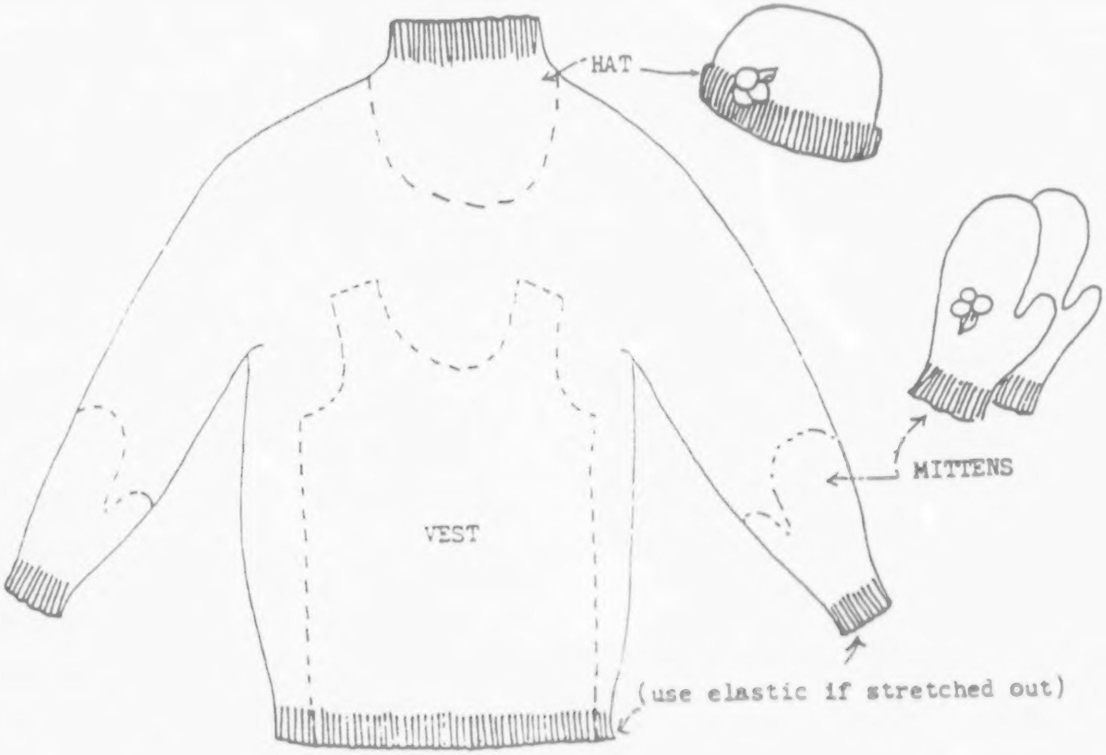
12. Press with steam and presscloth.

Note: For a vest, use a lined pattern and plan to line it. It will stabilize the knit and finish off edges, too. Try using the sweater for just the front and lining fabric for the back.

NEW LIFE FOR OLD SWEATERS - PULLOVER VERSION

Directions: Read entire page of instructions before cutting.

1. Make a pattern to fit the child.
2. Place pattern on old sweater, making sure the sweater is flat. Pin in place and cut out.
3. Sew new pieces together with 1/4-inch seam, using an overlock or zigzag stitch. If sweater fabric seems to stretch, you can sew a piece of yarn along seams. (Lay the yarn on the seamline and zigzag over it.) This will help the garment hold its shape.
4. Press with steam and presscloth.
5. Trim the hat and mittens as desired (with pom-poms, or whatever).



DYNAMICS OF CLOTHING II

UNIT VIII: ***RECYCLING AND ALTERATIONS***

TOPIC B: **ALTERATIONS AND REPAIRS**

OBJECTIVE: Students will be able to identify and apply repair and alteration techniques.

CONCEPT: Developing the skills to make appropriate clothing repairs and/or alterations provide economic and aesthetic rewards. Individual and family budgets can be extended considerably and the self-image of all individuals involved can be enhanced. People feel good about themselves when their clothing fits correctly and is attractive.

COMPETENCIES:

1. Identify various types of repairs commonly needed on clothing and/or household items (e.g., buttons resewn, zippers replaced, seams or stitching resewn, worn places reinforced, tears or rips mended, etc.).
2. Recognize the economic and aesthetic value of making timely clothing repairs to increase life span of garments and maintain original appearance.
3. Identify various types of alterations commonly needed for proper fit and appearance along with possible solutions (e.g., changing hemlines, modifying cuffs, altering necklines, removing collars, changing leg width, replacing buttons, etc.)
4. Explore areas of application for alteration techniques:
   a. Ready-to-wear articles (new clothing)
   b. For the disabled
   c. Recycled articles (used clothing)
5. Apply alterations and/or repair techniques.

ACTIVITIES/OPTIONS	SUPPLIES NEEDED
1. What Needs To Be Repaired or Altered?	Plan A: Overhead transparency (II-VIII-21) Transparency marker Plan B: Copies of page II-VIII-21 Articles of clothing or household items that need to be repaired
2. Repair Economics and Aesthetics	No additional supplies needed
3. A Stitch In Time	Classroom set of textbook, Clothes and Your Appearance
4. Alteration Alternatives	Teacher's option
5. Alteration and/or Repair Application	Students bring Optional: Copies of student activity guide (II-VIII-25)

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ACTIVITIES/OPTIONS

Option 1: What Needs To Be Repaired or Altered?

Note The teacher needs to have a very open relationship with his/her students in order to do Plan A without offense. Handle carefully! If the teacher does not feel comfortable with this approach, try Plan B.

Plan A: Begin by asking the students if they can be good sports today and be a part of the lesson. Explain that what you are about to do is not intended to embarrass anyone, but that it is the easiest and quickest way to make your point. Have an overhead transparency of page II-VIII-21 ready and have one of the students be the recorder. Then ask the students to all stand up while the teacher walks around the room checking the clothing the students are wearing. When the teacher spots something that needs to be repaired or altered, point it out and briefly discuss it, while the recorder makes note of it. Continue until every student in the class has been checked (an important thing to do to avoid discrimination claims) and then continue with Option 2.

Plan B: Have articles of clothing and/or household items that need to be repaired around the room. Number them. Give each student a copy of page II-VIII-21 to complete as the students circulate from article to article. When the students have finished circulating, continue with Option 2.

Option 2: Repair Economics and Aesthetics

Using the needed repairs and alterations that were identified in Option 1, continue by having the students assess:

- How much money can be saved by making repairs
- The time involved to make the repair
- The difference in appearance and the image message given
- The difference in how they feel when wearing the article
- When repairs should be done

Option 3: A Stitch In Time

Have students read pages 174-182 of Chapter 12: Repair, Redesign, Recycle in the Clothes and Your Appearance textbook from Goodheart-Willcox. This material covers a lot of commonly needed repairs and how to take care of them. It is good basic material. It is summarized on page II-VII-22.

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ACTIVITIES/OPTIONS

Option 4: Alteration Alternatives

Explain that alterations are primarily done for the following reasons:

- Better fit
- Enhance appearance
- Provide comfort
- Accommodate disabilities

Briefly cover these areas of application for making alterations:

- Ready-to-wear articles (new clothing)
  (See pages 152-156 of Clothing textbook by Glencoe for background information.)
- For the disabled
  (See page 260 of Clothing textbook by Glencoe for background information.)
- Recycled articles (used clothing)
  (See Unit VIII-A of this curriculum.)

The materials on ready-to-wear alterations and alterations for the disabled is summarized on page II-VII-24.

Option 5: Alteration and/or Repair Application

Have the students make the alterations and/or repairs identified in Option 1, Plan A. Or, have the students bring something from home that needs to be altered and/or repaired and take care of it.

Optional: Assign the students to make needed repairs or alterations to three (3) to five (5) items in their home. These can be for any member of the family. In fact, the teacher might want to designate that a minimum of one (1) or two (2) item(s) must be for someone else in the family. Have the students keep a record of their repairs or alterations on the student activity guide provided.

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RESOURCES

Video

A Rx for Your Clothes, Nasco, P.O. Box 901, Fort Atkinson, WI 53538-0901. 1-800-558-9595. Catalog No. WA 15153H. 30 minutes.

Textbooks

Clothing, Jeanette Weber, Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004-0543. 1-800-334-3744. Catalog No. 0-02-640161-4. pp. 152-155, 211, 260.

Clothes and Your Appearance, Louise A. Liddell, Goodheart-Willcox Company, Inc., 123 W. Taft Drive, South Holland, IL 60473-2089. 1-800-323-0440. Catalog No. 0-87006-844-X. pp. 174-182.

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ASSESSMENT/EVALUATION QUESTIONS

1. **Identify various types of repairs commonly needed on clothing and/or household items (e.g., buttons resewn, zippers replaced, seams or stitching resewn, worn places reinforced, tears or rips mended, etc.).**

    1. Why should garments be repaired as soon as possible?
        - Makes repairs easier and more possible to accomplish
        - Keeps rips or tears from getting larger
        - Keeps the garment in a wearable state

    2. Give the solutions for the common types of repairs listed below.

Hole in garment	Patching - functional or decorative Applying appliqué over it
Worn spots	Darning Reinforcing with iron-on fabric
Seam or stitching rips	Restitching by machine or hand
Seam edges fraying	Overlocking or overcasting
Loose buttons	Resewing
Lost buttons	Replace with similar button On shirts/blouses, use bottom button for replacement and sew similar button on bottom
Buttons too tight	Resew with shanks
Buttonholes too tight	Extend opening slightly
Fasteners (snaps, etc.) loose	Restitch
Zipper broken	Replace zipper

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ASSESSMENT/EVALUATION QUESTIONS

2. Recognize the economic and aesthetic value of making timely clothing repairs to increase life span of garments and maintain original appearance.

1. Name three (3) to five (5) benefits of taking the time to alter ready-made garments.
   - Save money
   - Customize fit
   - Add to comfort
   - Enhance and/or maintain appearance
   - Increase self-image

2. Approximately how much money can be saved by:

   a. Replacing a zipper in a pair of slacks

   b. Patching a pair of jeans

   c. Restitching a torn pocket on a shirt

   d. Restitching a broken seam on a good dress

   e. Putting new elastic in

   f. Replacing lost buttons on a jacket

   g. Overlocking fraying seams on some pajamas

   - Answers to these will vary but should be within reasonable range.

3. To the left of each letter above, write the approximate length of time it would take you to make that repair.

4. Clothing that is in good repair and looks good:
   A. Makes us more comfortable
   B. Gives us a good self-image
   C. Provides self-confidence
   D.* All of the above

ASSESSMENT/EVALUATION QUESTIONS

3. **Identify various types of alterations commonly needed for proper fit and appearance along with possible solutions (e.g., changing hemlines, modifying cuffs, altering necklines, removing collars, changing leg width, replacing buttons, etc.).**

    1. For each of the alterations listed below, write a possible solution.

Adjusting length of garment	Lengthen or shorten hem
Adjusting length of sleeve	Remove cuffs and reposition
Adjusting fit (width)	
too large	Make seams bigger; remove old seams
too tight	Make seams narrower; remove old seams
neckline too tight	Move top button(s) over
waistband too tight	Remove waistband and adjust placement
waistband too big	Add elastic in back to take up slack
Buttons wrong color/style	Replace buttons
Article too plain	Add contrasting trim, embroidered design, etc.

ASSESSMENT/EVALUATION QUESTIONS

4. **Explore areas of application for alteration techniques:**
   - **a. Ready-to-wear articles (new clothing)**
   - **b. For the disabled**
   - **c. Recycled articles (used clothing)**

1. List three (3) reasons why a person might want or need to make alterations to something just purchased.
   - Received gift that didn't fit right
   - Found something on sale that needed altering
   - Article needed to be repaired

2. Three areas for applying alterations techniques are:
   - Ready-to-wear articles
   - For the disabled
   - Recycled articles

3. What is the main reason for making clothing modifications for disabled persons?
   - Enables them to be more self-sufficient

4. For each of the problems disabled persons encounter that are listed below, give a possible modification.

Can't fasten pants/skirts	Make elasticized waist
Can't fasten small snaps	Replace with larger snaps/hooks and eyes
cuffs	Replace with hook and loop tape
necklines	Replace with larger buttons
Need more space for cast/brace	Open seam; add hook and loop tape Open seam; leave open and resew later
Buttons too small	Replace with larger buttons (May have to enlarge buttonholes, too)
Can't hold zipper pull	Add a plastic or metal ring, or a fabric loop to pull
Can't get garment over head	Add an extra zipper in seamline

CLOTHING REPAIRS AND ALTERATIONS

Student or Article No.	Repair or Alteration	Time Required	Money Saved	Image Message Change	Self-Image Difference

A STITCH IN TIME

What do you do with your clothes when they need to be repaired?

- Ignore them and toss them in the laundry basket?
- Hide them in the back of your closet?
- Get rid of them?

A better solution is to repair the garments right away. Why?

- Makes repairs easier and more possible to accomplish
- Keeps rips or tears from getting larger
- Keeps the garment in a wearable state

Some common types of repairs needed and solutions are:

REPAIR	SOLUTION
Hole in garment	Patching - functional or decorative Applying appliqué over it
Worn spots	Darning Reinforcing with iron-on fabric
Seam or stitching rips	Restitching by machine or hand
Seam edges fraying	Overlocking or overcasting
Loose buttons	Resewing
Lost buttons	Replace with similar button On shirts/blouses, use bottom button for replacement and sew similar button on bottom
Buttons too tight	Resew with shanks
Buttonholes too tight	Extend opening slightly
Fasteners (snaps, etc.) loose	Restitch
Zipper broken	Replace zipper

- Condensed from Clothes and Your Appearance, Goodheart-Willcox, pp. 174-181.

ALTERING READY-TO-WEAR

What are some occasions where a person might want or need to make alterations to something new?

- Received a gift that did not fit quite right and couldn't be returned
- Found something on sale that was fantastic but too long or a bit too big
- Found something that you could really use but the buttons aren't right
- Found an article that is really marked down but needs to be repaired

These are just a few examples of occasions when you might want or need to make alterations to ready-to-wear items, whether they be new or recycled.

Some common types of alterations needed and solutions are:

ALTERATION	SOLUTION
Adjusting length of garment	Lengthen or shorten hem
Adjusting length of sleeve	Remove cuffs and reposition
Adjusting fit (width)	
• too large	Make seams bigger; remove old seams
• too tight	Make seams narrower; remove old seams
• neckline too tight	Move top button(s) over
• waistband too tight	Remove waistband and adjust placement
• waistband too big	Add elastic in back to take up slack
Buttons wrong color/style	Replace buttons
Article too plain	Add contrasting trim, embroidered design, etc.

Others:

ALTERATIONS FOR THE DISABLED

Simple alterations or modifications made in clothes for disabled persons enables them to be more self-sufficient as well as more comfortable. These adjustments may simply take the form of an easier type of fastener or a minor styling change.

Some common types of modifications needed for the disabled and possible solutions are:

PROBLEM	**SOLUTION**
Can't fasten pants/skirts	Make elasticized waist
Can't fasten small snaps/hooks and eyes • cuffs • necklines	Replace with larger snaps/hooks and eyes Replace with hook and loop tape
Need more space for cast/brace	Open seam; add hook and loop tape Open seam; leave open and resew later
Buttons too small	Replace with larger buttons (May have to enlarge buttonholes, too)
Can't hold zipper pull	Add a plastic or metal ring, or a fabric loop to pull
Can't get garment over head	Add an extra zipper in seamline

Others:

CLOTHING REPAIRS AND ALTERATIONS

Name ________________________ Period __________ Date __________

Family Member	Item Repaired or Altered	Repair or Alteration	Time Required	Money Saved	Image Message Change

My daughter/son has completed the clothing repairs and alterations as stated above.

____
Parent Signature

Parent Comment(s):

DYNAMICS OF CLOTHING II

UNIT IX: *CHILDREN'S CLOTHING*

TOPIC A: **CLOTHING NEEDS AND CONSTRUCTION TECHNIQUES**

OBJECTIVE: Students will be able to select and make quality clothing for children that will be comfortable, functional, durable, and economical.

CONCEPT: Children outgrow clothing so quickly that it becomes necessary to make extremely good choices when purchasing or making their clothing. Poor choices can become an economic burden and/or cause discomfort to the child. Knowing what quality characteristics to look for allows the consumer to make better choices.

COMPETENCIES:

1. Study the special fitting and design needs of children.
2. Compare ready-made articles of children's clothing to custom-sewn articles for cost, quality of fabric and construction, design features, comfort, personal preference, and appearance.
3. Identify specific construction and fitting techniques used in children's clothing to those used for adult clothing.
4. Incorporate children's construction and fitting techniques in a child's article of clothing.

OPTIONS/ACTIVITIES	SUPPLIES NEEDED
1. My Favorite Outfit As a Child	None
2. The Basic Criteria	Copies of student activity guide (II-IX-21) Overhead transparencies (II-IX-14 through II-IX-20) OR Posters with pictures from current pattern books OR Classroom set of textbooks
3. Children's Clothing Analysis	Children's clothing to evaluate Copies of student activity guide (II-IX-21 and II-IX-22)
4. Pattern Sizing and Fitting	Children to measure Copies of measurement guide (II-IX-23) Copies of student activity guide (II-IX-26)
5. Infant Sewing Project	Copies of student activity guides (II-IX-27 and II-IX-28)
6. Recycled Project for a Child	

OPTIONS/ACTIVITIES

Option 1: **My Favorite Outfit As a Child**

Have the students write a description of a favorite outfit they had as a child. Then ask them to tell what it was they liked about that outfit and write their responses on the board. The responses will probably fall into the following categories or something similar:

- Ease of dressing
- Wearability: safe, comfortable, durable
- Fabric color and texture
- Growth features (long lasting)
- Appearance: fun, decorative details

The teacher may want to begin grouping the responses as the students give them to prepare the students for the background information in the next option. Upon completion of the responses, identify the major categories for the students and explain that these will be the criteria for evaluating children's clothing throughout this unit.

Option 2: **The Basic Criteria**

The background information for this topic can be presented in several different ways. A couple of them are:

A. Use the teacher background information provided in this unit, using overhead transparencies of the graphics or posters with pictures from current pattern books to illustrate the points as they are given. The students can use the corresponding student activity guide to record the information.

B. Have the students read the materials from a textbook or textbooks. Two sources are:
   1. Clothing, Glencoe, pp. 58, 157-158, 255-258.
   2. Clothes and Your Appearance, Goodheart-Willcox, pp. 155-161.

Option 3: **Children's Clothing Analysis**

Plan A: Obtain some ready-made children's clothing from several stores and bring to class. Be sure to have a wide range of construction and fabric quality, etc. Also, have several pieces for various ages and stages of development—infant, toddler, preschool, elementary. Group the articles by stages, numbering each item. Using the student activity guide provided, have the students evaluate the articles according to the criteria established. Upon completion, have a brief group discussion about each item.

ACTIVITIES/OPTIONS

Plan B: Do the same activity as above, except bring the children's clothing to class from other sources—maybe from home, friends or neighbors, other teachers, etc., but NOT from students. (The teacher needs to avoid a potential liability situation here.) Catalogs could be used for pricing references.

At the conclusion of either plan, have the students evaluate the favorite outfit they had as a child (Option 1) according to the criteria.

Option 4: Pattern Sizing and Fitting

Using the teacher background information provided, have the students determine the figure type of a child, take his/her measurements, and determine the alterations needed. This could be the child for which they are going to make a garment, or if your school has a preschool/day care situation, borrow the children for part of a class period and have the students practice measuring with them.

The background information provided could be used on overhead transparencies or as a student handout. An accompanying student activity guide is provided.

Option 5: Infant Sewing Projects

Have the students complete the two (2) infant projects, the bib and the burp cloth, described in this topic before making a child's article of clothing. The construction techniques included in each of these projects are:

Bib: Applying ribbing
Doing appliqué with fusible web

Burp Cloth: Decorative stitching
Inserting lace or eyelet

Upon completion, the students may want to make some baby or toddler sleepers which include these techniques:

Sewing on knit fabric
Setting in a zipper
Applying ribbing
Using the serger

Then have each student make a child's article of clothing, incorporating the construction techniques covered in this topic. Encourage the students to keep the articles simple.

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Option 6: Recycled Project for a Child

See Unit VIII Topic A: Redesigning/Recycling Clothing and/or Fabric for suggested activities here.

RESOURCES

Textbooks

Clothing, Jeanette Weber, Glencoe/McGraw-Hill, P.O. Box 543, Blacklick, OH 43004-0543. 1-800-334-3744. Catalog No. 0-02-640161-4. pp. 58, 157-158, 255-258.

Clothes and Your Appearance, Louise A. Liddell, Goodheart-Willcox Company, Inc., 123 W. Taft Drive, South Holland, IL 60473-2089. 1-800-323-0440. Catalog No.0-87006-844-X. pp. 155-161.

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ASSESSMENT/EVALUATION QUESTIONS

1. **Study the special fitting and design needs of children.**

2. **Compare ready-made articles of children's clothing to custom-sewn articles for cost, quality of fabric and construction, design features, comfort, personal preference, and appearance.**

3. **Compare specific construction and fitting techniques used in children's clothing to those used for adult clothing.**

    1. To encourage interest in self-dressing, clothing should be easy to put on and take off. List five (5) construction features that aid in self-dressing.
        - Front openings so the child can see them.
        - Big buttons (about the size of a nickel) and buttonholes.
        - Hook and loop fasteners.
        - Zippers—as few as possible. Must be placed where the child can see them easily and the pull large enough to get hold of easily.
        - Easy-to-tell fronts and backs.
        - Large enough or stretchy enough neckline to slip over head easily.
        - Suspenders fastened with large buttons or overall hooks.
        - Elastic or stretch waistbands in pants, shorts, and skirts.
        - Pockets that are easy to reach and big enough to use.
        - Knits and stretch materials that "give."

    2. Self-dressing helps the child to develop: (three (3) things)
       - Independence - Responsibility - Cooperation

    3. Zippers should be used wherever possible because they are easy for children to manipulate.
       A. True
       B.* False

    4. Full-cut dresses (with no waistline) are the most comfortable to wear because they are the least binding. Also, the child can wear them longer.
       A.* True
       B. False

    5. Indoor wear should be lightweight, windproof, and water resistant.
       A. True
       B.* False

    6. Clothes that are too big are not only uncomfortable, but they are __ unsafe_____.

◆◆◆

ASSESSMENT/EVALUATION QUESTIONS

7. The "no collar is better" feature generally applies to children's clothing.
   A.* True
   B. False

8. Hook and loop fasteners are an excellent solution to help children dress themselves. They are also easy for the children to manipulate.
   A.* True
   B. False

9. Outdoor wear, such as snowsuits, coats, and jackets, should have special features. Name three(3).
   - Lightweight - Windproof - Water resistant

10. The three (3) major factors in the wearability of a garment are:
    - Durability - Comfort - Safety

11. Reinforcing areas of clothing that are points of strain can add to the durability of the garment considerably.
    A.* True
    B. False

12. Reinforcing areas of clothing that are points of strain takes a lot of effort and time.
    A. True
    B.* False

13. Three (3) examples of reinforcing areas of clothing that are points of strain are:
    • Patches
    • Metal rivets
    • Bar tacks
    • Extra stitching

14. Durability is influenced by the construction of the: (two (2) things)
    - Fabric - Garment

15. Cotton and cotton-blend fabrics are excellent choices for children's clothing because they are:
    A. Absorbent, easy to care for, and water resistant
    B. Absorbent, windproof, and water resistant
    C.* Absorbent, easy to care for, and durable
    D. Non-absorbent, easy to care for, and durable

ASSESSMENT/EVALUATION QUESTIONS

16. Clothes made of smooth, firm, evenly woven or knitted fabrics are not the best choices for children's clothing.
A. True
B.* False

17. Better fabrics are more closely woven and tend to wear longer and keep their shape better.
A.* True
B. False

18. Children love:
A.* Bright colors
B. Dark colors
C. Any color

19. Clothes that have pictures on them are:
A. Not children's favorites
B.* Some of children's favorites
C. Mostly for adults

20. Hard, crisp surface fabrics are good choices for children's clothing because they last longer.
A. True
B.* False

21. The finish that should be on all children's sleepwear, ready-made or homemade, is called:
- Flame retardant

22. It is important that new clothes for children allow for some growing room; however, buying much too large presents problems, too.
A.* True
B. False

23. Children's patterns should be purchased by age, e.g., whatever age the child is, that is the correct pattern size to buy.
A. True
B.* False

24. List five (5) different types of examples of expandable or growing features.
• Elastic waistbands
• Raglan or kimono sleeves (or no sleeves at all)
• Wide underarm or leg seams that can be let out as the child grows
• Pants with cuffs that can be let down later
• Adjustable straps
• Wide hems or tucks in dresses that can be let down later
• No definite waistline; things that are straight or loose hanging

CHILDREN'S CLOTHING: EASE OF DRESSING/SELF-HELP FEATURES

Toddlers are eager to learn dressing skills. They learn how to take clothes off before they learn how to put them on. Soon after the first birthday, the child begins pulling clothing off. Between 18 and 24 months, toddlers learn to undress completely, unless clothes have difficult fasteners.

Self-dressing should be encouraged when a child begins to show interest. First attempts to help in dressing begin at about 13 or 14 months when the child holds out an arm or leg or thrusts an arm through the sleeve of a shirt or a leg into pants. By age two, the child can pull up pants, but shirts are still difficult. At age three, the child can usually dress independently except for help with buttons, difficult fasteners, and shoelaces.

To encourage interest in dressing, clothing should be easy to put on and take off. Self-dressing helps develop independence, responsibility, and cooperation. Look for the following features:

- Front openings so the child can see them.
- Big buttons (about the size of a nickel) and buttonholes.
- Hook and loop fasteners.
- Zippers—as few as possible. Must be placed where the child can see them easily and the pull large enough to get hold of easily.
- Easy-to-tell fronts and backs.
- Large enough or stretchy enough neckline to slip over head easily.
- Suspenders fastened with large buttons or overall hooks.
- Elastic or stretch waistbands in pants, shorts, and skirts.
- Pockets that are easy to reach and big enough to use.
- Knits and stretch materials that "give."

CHILDREN'S CLOTHING: WEARABILITY

Comfort is the most important characteristic to look for in clothing for young children. Clothes that allow freedom of movement are the most comfortable. Knit clothes that stretch with movement are good choices. Avoid stiff or scratchy fabrics. Clothing size affects both comfort and movement. Clothes that are too small restrict movement. Pants that are too long can cause a child to trip. A long-sleeved shirt that covers the hands makes play difficult. All clothing that is the same size does not fit the same way. It is best to have children try on clothes before buying and/or during the construction phases.

CHILDREN'S CLOTHING - WEARABILITY

Some things to look for that provide comfort are:

Neckline:	Low enough in front to be comfortable and snug enough in back to stay in place. No collar is generally better.
Shoulders and chest:	Wide enough and roomy enough across the shoulders and chest for free arm movement without pulling but not so full that the shoulder seams will not stay in place.
Sleeves:	Roomy sleeves, such as raglan or kimono type are most comfortable. Tight ones restrict movement and pull out with strain. Armholes should be about 1 inch below the armpit.
Length:	Shirts and blouses should be long enough to stay in place. Look for wide hems in skirts and pants. Clothes that are too long are uncomfortable as well as unsafe.
Hipline:	The crotch should be long enough that it doesn't bind and allows for ease of movement. The fabric around the hips should be full enough so the child can move freely.
Girls' dresses:	Full-cut dresses (no waistline) with gathers or pleats attached to a yoke are the most comfortable because they are the least binding. The dress should be short enough to keep from getting under foot when the child plays.
Outdoor wear:	Outdoor wear, such as snowsuits, coats, and jackets, should be lightweight, windproof, and water resistant. Also they need to be roomy enough to be worn over clothing comfortably and take on and off easily.

Durability is a major factor when choosing children's clothing. Children's clothes must withstand both hard wear and repeated laundering. Durability is influenced by the construction as well as the fabric. Reinforcement at the points of strain greatly increases the durability of a garment. Cotton and cotton-blend fabrics are excellent choices for children because of their durability, absorbency, and ease of care.

Reinforcing areas of clothing that are points of strain can add to the durability of the garment considerably. Taking the time to reinforce points of strain on both ready-made articles of clothing as well as homemade articles is certainly worth the little bit of time and effort required.

CHILDREN'S CLOTHING: WEARABILITY

Some types of reinforcement that increase the life of garments are:

• Patches	Put extra fabric on elbows and knees. The patches can be decorative as well as functional.
• Metal rivets	Place at corners of pocket.
• Bar tacks	Place at the ends of buttonholes (so they don't unravel), pocket corners, and placket openings.
• Extra stitching	Sew an extra row of stitching along areas of stress such as pockets, plackets, crotch seams, etc. These can also be in the form of topstitching or decorative stitches.

Safety is a major concern with children's clothing. Clothing that is too large or too long inhibits the child's physical activities and presents safety hazards. For example:

- Sleeves that are too long limit hand movement and become caught easily
- Pants that are too long cause the child to stumble and fall
- Socks that are too big cause blisters on the feet
- Shoes that are too big cause the child to stumble or change his/her walking pattern to accommodate them. This could affect long-term bone structure.
- Dresses that are too long cause the child to stumble and fall.

Clothing that is too small is uncomfortable and binding as well as difficult to get on and off. Clothing that fits and/or has a slight amount of room for growth is always the safest.

CHILDREN'S CLOTHING: FABRIC CHOICES

Fabrics

Choose clothes made of smooth, firm, evenly woven or knitted fabrics. Hold the fabric up to the light and see how closely it is woven. Better fabrics are more closely woven and tend to wear longer and keep their shape better.

Fabric considerations for children's clothing include:

- Stretch (knit) fabrics give extra comfort and allow more freedom for active play.
- Soft, lightweight fabrics won't scratch the child's skin or feel heavy when wearing.
- Cotton fabrics are absorbent and washable—both important features. Examples of good wearing cotton are corduroy, medium- or light-weight denim, poplin, sailcloth, tarpoon cloth, seersucker, terrycloth.
- Cotton-blend fabrics are usually more durable than 100 percent cotton, and easier to care for.

CHILDREN'S CLOTHING - FABRICS AND FINISHES

Children love bright colors. In fact, children choose their clothes more by color than anything else. They also love "picture clothes"—fabrics printed with animals, toys, or story characters, or garments with a picture on the front.

Children's preferences for textures vary considerably. Some like smooth surfaces only, some want fuzzy surfaces, and some like slick surfaces. By providing children with a variety of surfaces, they learn what they feel most comfortable with, and thereby, learn something about themselves. Soft surfaces work best with children and are most comfortable. Avoid hard, crisp surfaces.

Finishes

Some finishes are easy to see and feel while others are not. The consumer must depend on labels to tell what the finish will do and how to care for it. Some examples of finishes commonly used on children's clothing and what they do are:

• Wash and wear	Needs little or no ironing.
• Sanforized	Fabric will not shrink more than 1 percent.
• Stain and spot resistant	Fabric gives up water and oily stains easily.
• Water repellent	Fabric sheds water but allows air to go through; used on outdoor wear.
• Flame retardant	Makes fabric resistant to fire; used on sleepwear; washes out.

CHILDREN'S CLOTHING: CLOTHES THAT GROW

Buy or make clothing with some "room to grow." However, buying too large is not a good idea because clothing that is way too big looks strange, limits the child's actions, and endangers their safety. The clothing may end up fading or wearing out before the child actually grows into them.

Look for garments with expandable or stretch features—clothes that can fit the child now and later, too. Examples of expandable or stretch features are:

- Elastic waistbands
- Raglan or kimono sleeves (or no sleeves at all)
- Wide underarm or leg seams that will stand strain and can be let out as the child grows
- Pants with cuffs that can be let down later
- Wide hems or tucks in dresses that can be let down later
- No definite waistline; things that are straight or loose hanging
- Adjustable straps for lengthening

CHILDREN'S CLOTHING: CLOTHES THAT GROW

Since young children continue to grow rapidly, they need larger clothes often. Many parents exchange outgrown clothes to cut costs. Children's clothes are also plentiful at yard sales and thrift stores. Hand-me-downs and recycled clothing can often be altered or redesigned easily. Children's clothes are most economical when they can expand a bit to allow for growth.

CHILDREN'S CLOTHING: APPEARANCE

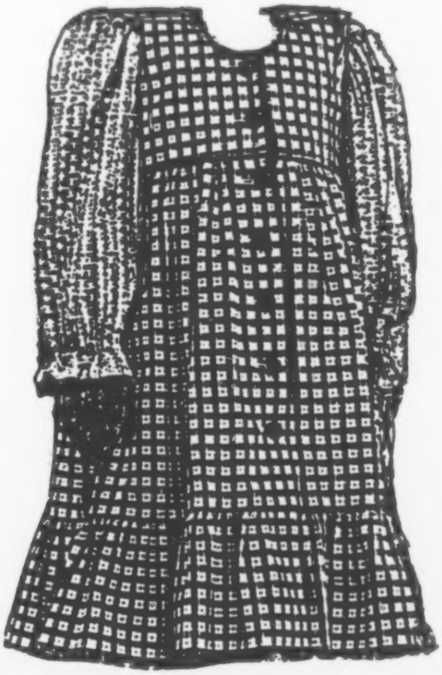
The appearance of a child's clothing plays an important role in the development of his/her self-image and self-concept. When children are dressed so they look pretty or cute, they receive compliments from others, and even though they may act embarrassed, they feel a sense of pride. The simple act of matching colors can make an outfit more attractive.

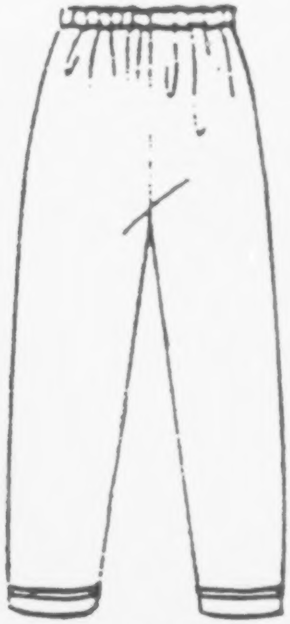
Fun, decorative details on children's clothing are a source of attention for the children as well as the adults around them. It is easy to take plain pieces of clothing and add an applique, lace, contrasting fabric, etc., to them and enhance their appearance significantly. These are the details that make children feel special and bring them enjoyment when wearing the article.

If children feel cute and special in the clothing they wear, they generally act accordingly. On the contrary, if they don't feel like they're cute in appearance and/or if their clothing doesn't fit properly, their actions often reflect those feelings.

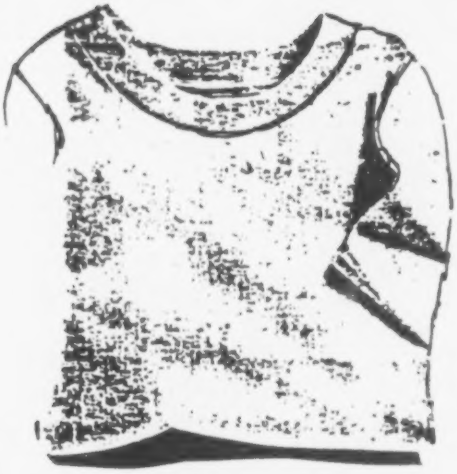
It is important to remember that children need to be allowed to be children and not miniature adults. They should not be dressed in such a manner that movement is restricted. Children are NOT adornments for parents. Designer labels aren't important to children—only to the parents as status symbols. The child learns about designer labels only if the parents teach them and make a big issue of it. Otherwise, children are happy in comfortable, cute clothes.

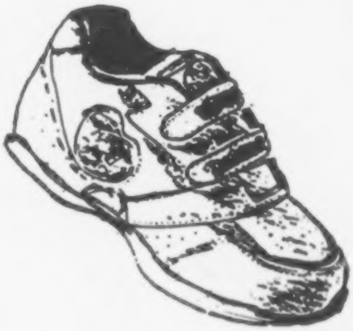
CHILDREN'S CLOTHING: EASE OF DRESSING/SELF-HELP FEATURES

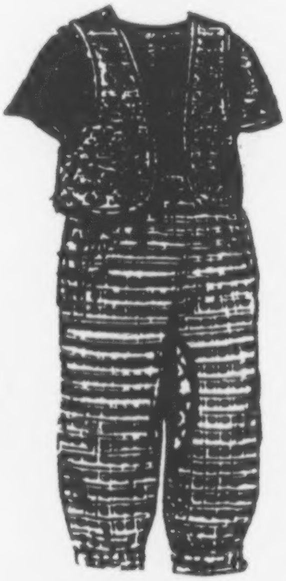

Front Button Closures


Elastic Waistbands

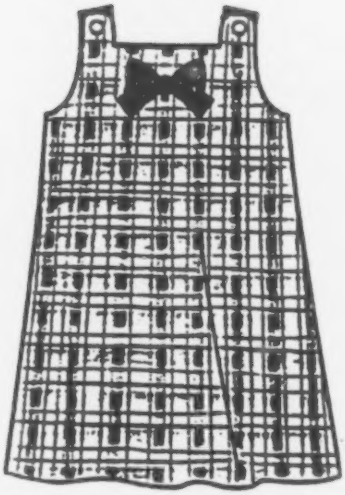
Large, Easy Fasteners


Stretch Necklines

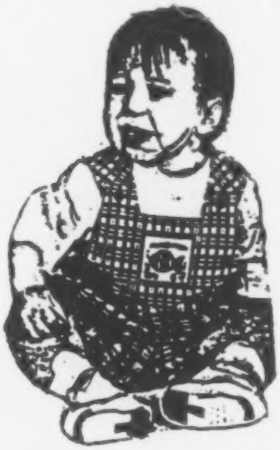

Velcro Fasteners


No-Fastener Clothing

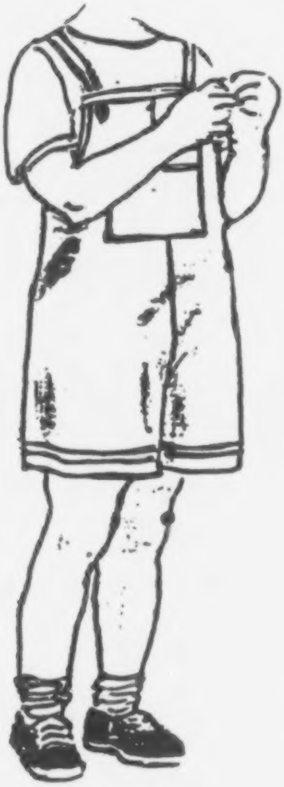
CHILDREN'S CLOTHING: WEARABILITY



Non-Binding



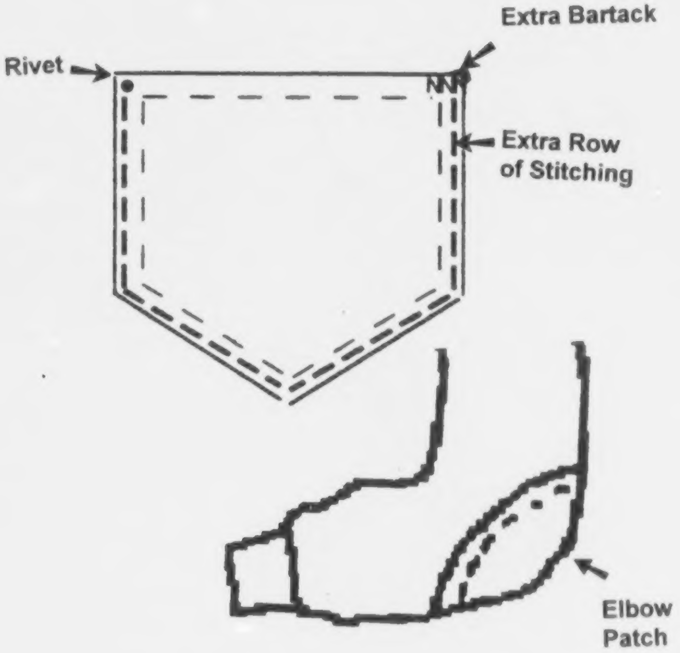
Ease of Movement

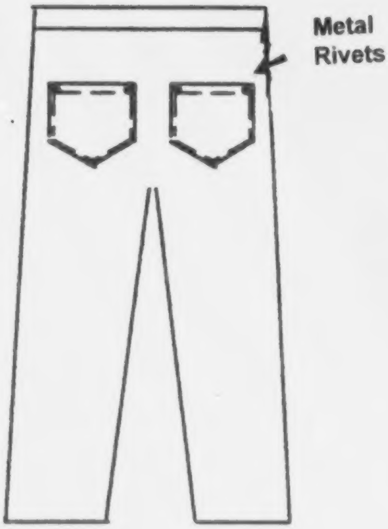


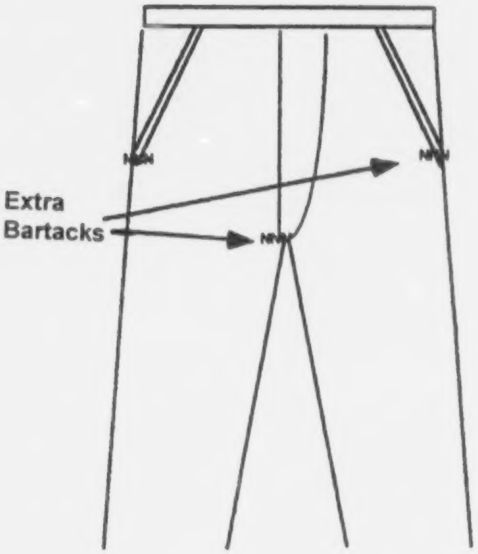
Comfortable

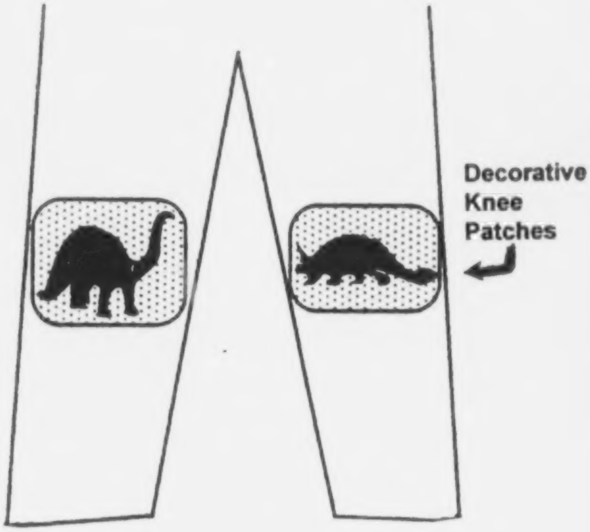
○○○

CHILDREN'S CLOTHING: DURABILITY AND REINFORCEMENT FEATURES


Extra Bartack
Rivet
Extra Row of Stitching
Elbow Patch

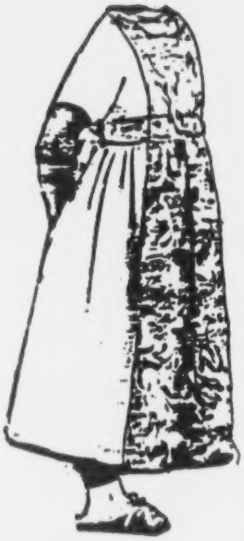

Metal Rivets

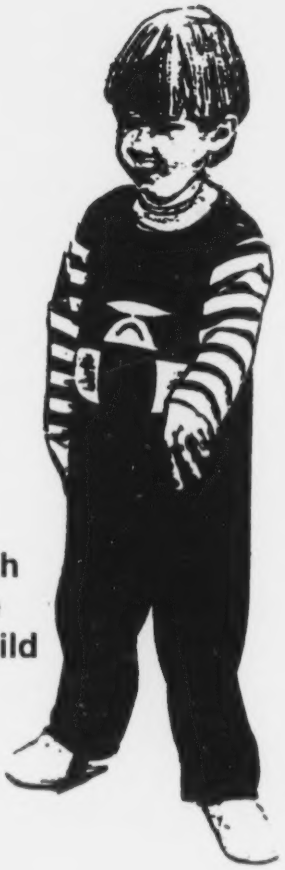

Extra Bartacks


Decorative Knee Patches

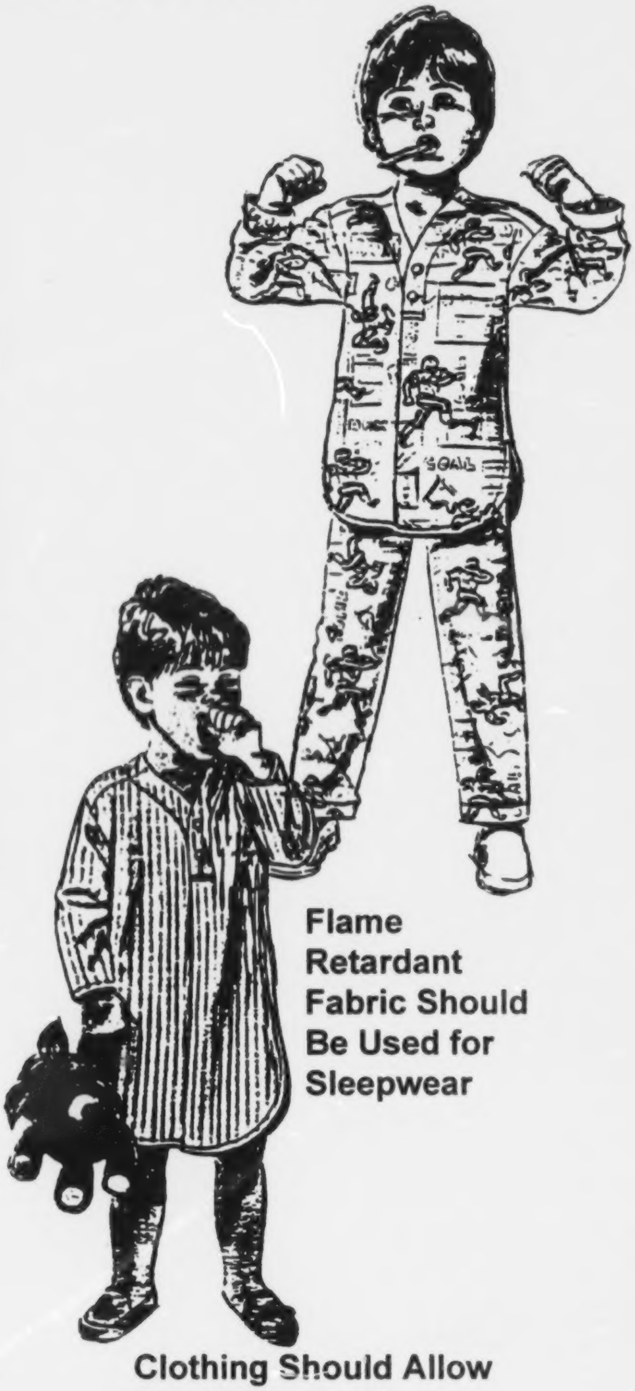
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO

CHILDREN'S CLOTHING: SAFETY FEATURES

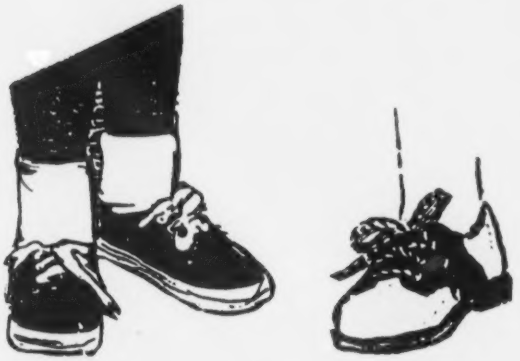




Garment Length Should Not Be So Long the Child Trips



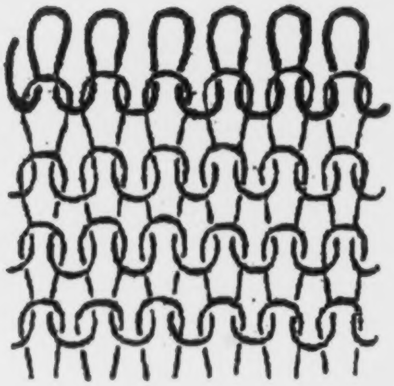
Flame Retardant Fabric Should Be Used for Sleepwear

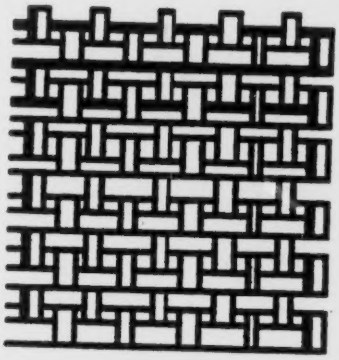


Shoes Should Fit Properly

Clothing Should Allow Ample Room for Movement

CHILDREN'S CLOTHING: FABRIC CHOICES



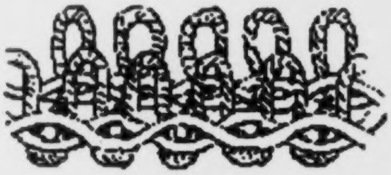


KNIT FABRIC:

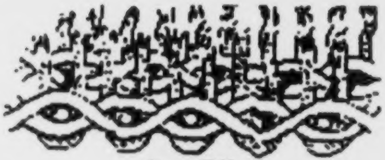
- Easy to care for
- Comfortable
- Grows with child
- Wears well
- Encourages self-dressing

TIGHTLY WOVEN COTTON FABRIC:

- Sturdy; wears well
- Comfortable
- Holds garment shape
- Easy to care for



Loop Pile



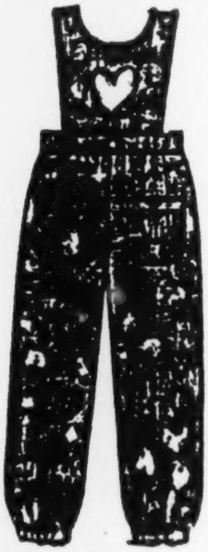
Cut Pile

FLANNEL OR TERRY FABRIC:

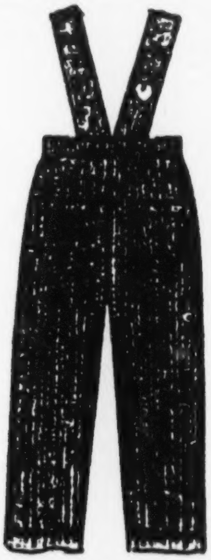
- Soft and comfortable
- Has some give
- Warm
- Flame retardant
- Easy to care for

CHILDREN'S CLOTHING: CLOTHES THAT GROW

The Suspenders Can Be Released for Growth or the Bib Can Be Removed

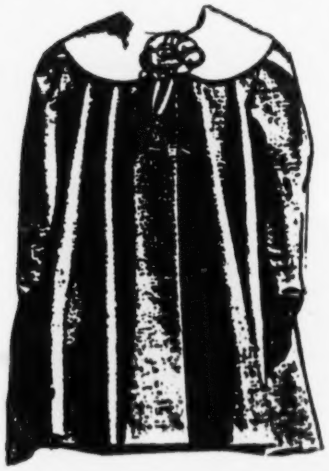


The Elastic Waistband Allows for Growth

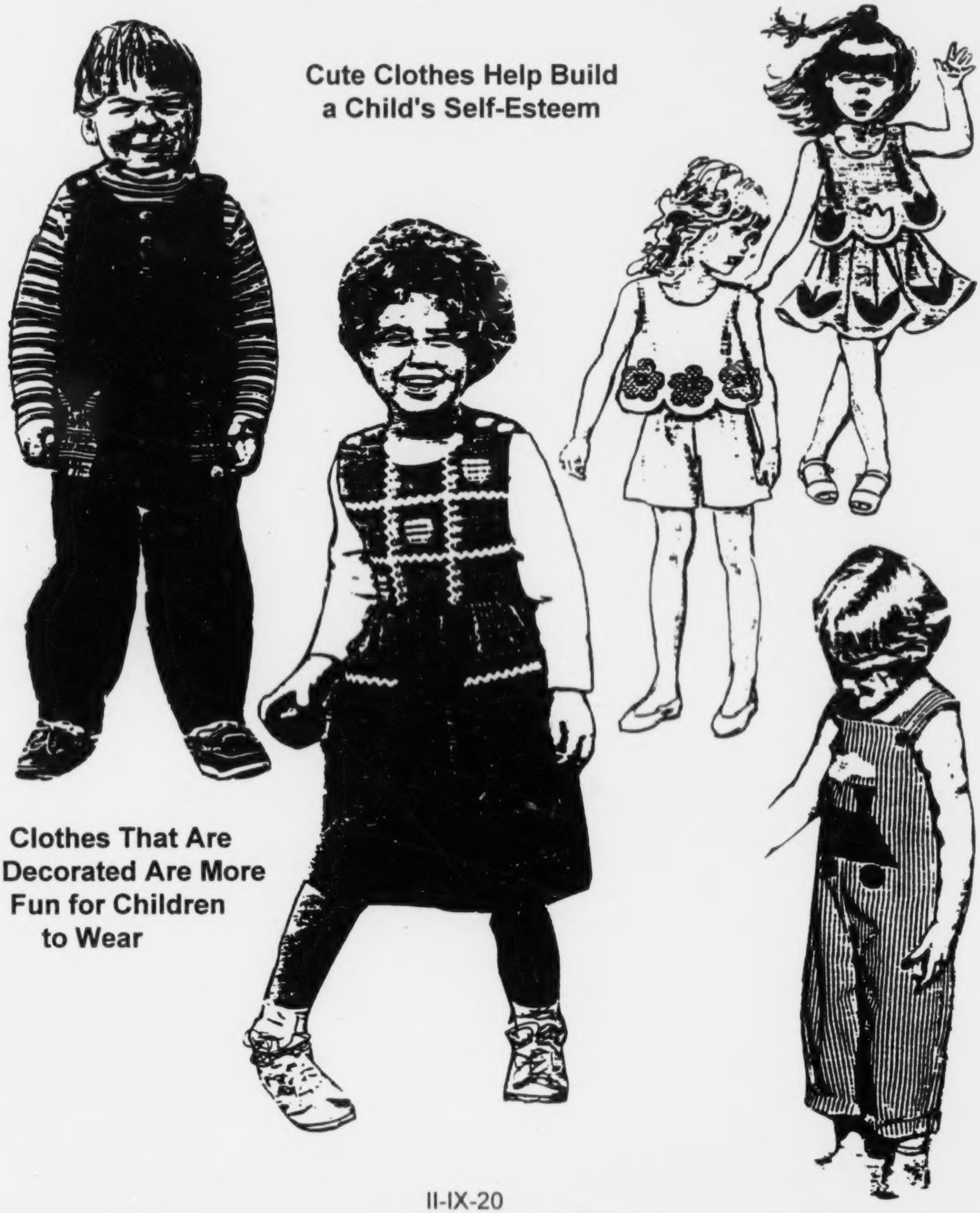


Pants or Overalls With Elastic Legs Can Have the Elastic Removed Later to Add Length

Dresses That Hang Freely Can "Grow" More Easily



CHILDREN'S CLOTHING: APPEARANCE



Cute Clothes Help Build a Child's Self-Esteem

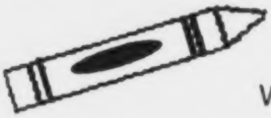
Clothes That Are Decorated Are More Fun for Children to Wear

Name ______________________ Period ______ Date ______________

CHILDREN'S CLOTHING: THE BASIC CRITERIA

EASE OF DRESSING

______________________ ______________________
______________________ ______________________
______________________ ______________________
______________________ ______________________
______________________ ______________________

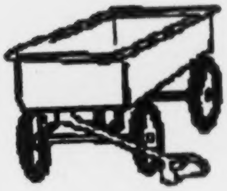


WEARABILITY

______________ ______________ ______________

REINFORCEMENT OPTIONS

______________________ ______________________
______________________ ______________________



FABRIC COLOR AND TEXTURE

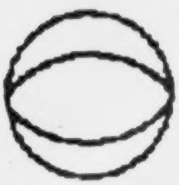
______________________ ______________________
______________________ ______________________

GROWTH FEATURES

______________________ ______________________
______________________ ______________________
______________________ ______________________
______________________ ______________________

APPEARANCE

______________________ ______________________
______________________ ______________________



Name ______________________________ Period ______ Date ________________

CHILDREN'S CLOTHING ANALYSIS

Directions: Evaluate the articles of children's clothing, using the following criteria. One (1) is the lowest rating, five (5) is the best rating. Be sure to match the clothing numbers.

No. 1:						**No. 2:**					
Ease of dressing	1	2	3	4	5	Ease of dressing	1	2	3	4	5
Wearability						Wearability					
- Safe	1	2	3	4	5	- Safe	1	2	3	4	5
- Comfortable	1	2	3	4	5	- Comfortable	1	2	3	4	5
- Durable	1	2	3	4	5	- Durable	1	2	3	4	5
Fabric color and texture	1	2	3	4	5	Color and texture	1	2	3	4	5
Growth features	1	2	3	4	5	Growth features	1	2	3	4	5
Appearance	1	2	3	4	5	Appearance	1	2	3	4	5
No. 3:						**No. 4:**					
Ease of dressing	1	2	3	4	5	Ease of dressing	1	2	3	4	5
Wearability						Wearability					
- Safe	1	2	3	4	5	- Safe	1	2	3	4	5
- Comfortable	1	2	3	4	5	- Comfortable	1	2	3	4	5
- Durable	1	2	3	4	5	- Durable	1	2	3	4	5
Fabric color and texture	1	2	3	4	5	Color and texture	1	2	3	4	5
Growth features	1	2	3	4	5	Growth features	1	2	3	4	5
Appearance	1	2	3	4	5	Appearance	1	2	3	4	5
No. 5:						**No. 6:**					
Ease of dressing	1	2	3	4	5	Ease of dressing	1	2	3	4	5
Wearability						Wearability					
- Safe	1	2	3	4	5	- Safe	1	2	3	4	5
- Comfortable	1	2	3	4	5	- Comfortable	1	2	3	4	5
- Durable	1	2	3	4	5	- Durable	1	2	3	4	5
Fabric color and texture	1	2	3	4	5	Color and texture	1	2	3	4	5
Growth features	1	2	3	4	5	Growth features	1	2	3	4	5
Appearance	1	2	3	4	5	Appearance	1	2	3	4	5
No. 7:						**No. 8:**					
Ease of dressing	1	2	3	4	5	Ease of dressing	1	2	3	4	5
Wearability						Wearability					
- Safe	1	2	3	4	5	- Safe	1	2	3	4	5
- Comfortable	1	2	3	4	5	- Comfortable	1	2	3	4	5
- Durable	1	2	3	4	5	- Durable	1	2	3	4	5
Fabric color and texture	1	2	3	4	5	Color and texture	1	2	3	4	5
Growth features	1	2	3	4	5	Growth features	1	2	3	4	5
Appearance	1	2	3	4	5	Appearance	1	2	3	4	5

CHILDREN'S CLOTHING: PATTERN SIZES AND ALTERATIONS

DETERMINING FIGURE TYPE

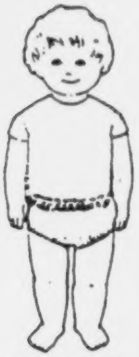
The two pattern figure types suitable for toddlers and preschoolers are Toddlers' and Children's. Toddlers' patterns have a diaper allowance, but Children's do not. Toddlers' and Children's sizes 2, 3, and 4 are based on the same chest and waist measurements but differ in the diaper allowance, length, and width through the shoulder and back.

Select pattern sizes by body measurements, not by age. When determining the pattern size to use, follow these guidelines:

- For any garment with a bodice (including coats and jumpsuits), select the size according to the chest measurement.
- For pants, overalls, and skirts, select the size according to the waist measurement.

Because children grow rapidly, take their measurements each time you sew. Taking measurements will determine pattern size as well as where alterations are necessary.

Below are the size charts for Toddlers' and Children's patterns (according to the major pattern companies).



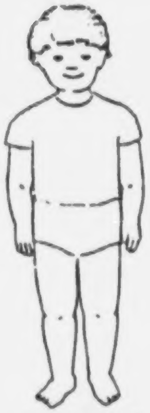
TODDLER'S FIGURE TYPE

TODDLERS'

Size	**1/2**	**1**	**2**	**3**	**4**
Breast or Chest	19	20	21	22	23"
Waist	19	19½	20	20½	21"
Approx. Height	28	31	34	37	40"

CHILDREN'S

Size	**2**	**3**	**4**	**5**	**6**	**6X**
Breast or Chest	21	22	23	24	25	25½
Waist	20	20½	21	21½	22	22½
Hip	---	---	24	25	26	26½
Back Waist Length	8½	9	9½	10	10½	10¾
Approx. Height	35	38	41	44	47	48



CHILDREN'S FIGURE TYPE

TAKING MEASUREMENTS

To take measurements, you will need a tape measure and string. The child should be dressed in underwear and, if possible, standing in a natural stance with feet together. Tie string around the child's waist; have child bend to each side so that the string rolls to the natural waistline. Take the appropriate measurements for the pattern.

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HINTS FOR ALTERATIONS

Before deciding if pattern alterations are needed, consider the amount of ease required for the pattern. There are two types of ease—wearing ease and design ease. **Wearing ease** is the extra fullness that allows a child to move in comfort without straining the garment seams or fabric. The amount of wearing ease in a garment varies according to the pattern company, garment style, and fabric. Knit fabrics require less wearing ease than wovens.

Below are general guidelines for minimum wearing ease. These measurements are not standardized and vary from one pattern company to another.

	TODDLERS'	CHILDREN'S
Chest	2 3/8" - 3"	2 3/8" - 3"
Waist	3/4" - 1"	3/4" - 1"
Hip	Depends on diapers	2" - 2 1/2"
Crotch depth	Depends on diapers	1"
Sleeve width at bicep	2"	2"

Design ease is the fullness added to a garment in addition to wearing ease. It determines the silhouette of the garment. Compare the child's body measurements to the measurements given on the pattern size chart. If these measurements are the same, it is not usually necessary to alter the pattern. However, some body measurements may not correspond to the pattern. In addition, certain measurements are not given on the pattern size chart. In both cases, compare the child's body measurements (plus suggested minimum wearing ease) to the width or length of the pattern piece measured at that position. Also, consider the amount of design ease allowed for a particular garment.

An easy and time-saving way to determine the amount of wearing ease necessary in a garment is to measure a similar ready-to-wear garment that fits the child well. It is important to measure the garment at the same points the pattern is measured.

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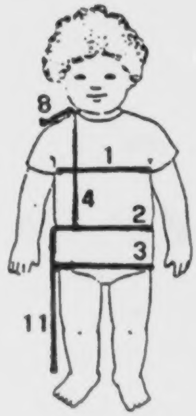
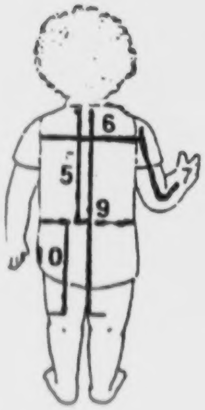
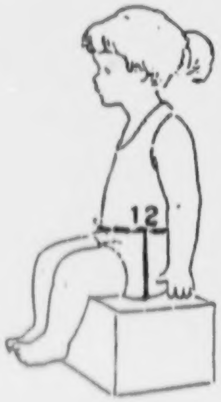






1.	Breast/Chest:	Place the tape measure under the arms, over the fullest part of the chest in front and across the shoulder blades in back. Keep the tape parallel to the floor.
2.	Waist:	Measure the natural waistline where the string is tied.
3.	Hips:	Measure around the body at the fullest part of the buttocks.
4.	Front Waist Length:	Measure from the back of neck at the shoulder over the chest to the waistline.
5.	Back Waist Length:	Measure from neck base (prominent bone at base of neck) to waistline.
6.	Back Width:	Measure back width the following distance below the neck base: Toddlers' - 2 3/4 inches Children's - 3 inches
7.	Arm Length:	Measure from top of arm to wristbone, with the elbow bent at a right angle.
8.	Shoulder Length:	Measure from the base of the neck at the shoulder to the shoulder point.
9.	Finished Dress Length:	Measure from neck base at center back to desired length.
10.	Back Skirt Length:	Measure from center back waist to desired length.
11.	Finished Pants Length:	Measure from the waist to the ankle along the outside of the leg.
12.	Crotch Depth:	(Use on Children's sizes only.) Have the child sit on a flat surface, such as a table or chair, measuring from the side waist to the flat surface.

Name ______________________ Period __________ Date ____________

CHILDREN'S CLOTHING: PATTERNS SIZES AND ALTERATIONS

Directions: Take the following measurements on a child. Then determine the pattern size required and the alterations needed.

	Child Measures	Ease Allowance	Pattern Measures	Adjustments Needed
1. Breast/Chest:				
2. Waist:				
3. Hips:				
4. Front Waist Length:				
5. Back Waist Length:				
6. Back Width:				
7. Arm Length:				
8. Shoulder Length:				
9. Finished Dress Length:				
10. Back Skirt Length:				
11. Finished Pants Length:				
12. Crotch Depth:				

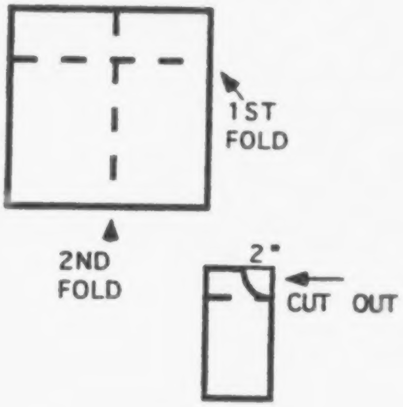
Child's Name: ______________________________ Age: ____________

Pattern Size Used: _____ Pattern Name and Number: ______________________

Comments:

APPLIQUÉ BIB

Supplies needed: Washcloth Ribbing Fusible Web Design to appliqué

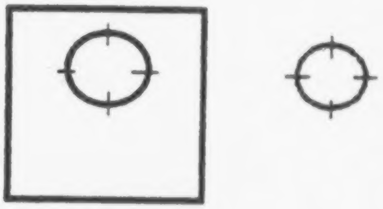


1. Fold the top of washcloth down about 3 inches. Fold again down the center in a lengthwise direction.

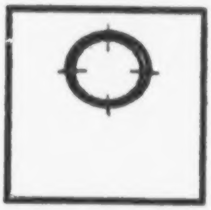
2. Cut a 2-inch quarter circle from the folded corner of the towel. This will yield about a 14-inch to 15-inch opening for the baby's head.

3. Cut a piece of ribbing 10 inches long and about 2½ inches wide. Sew ends together to form a circle.

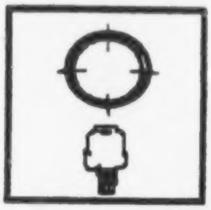
   Fold ribbing in half crosswise so it is only 1 1/4 inches wide. Press along fold, being careful NOT to stretch ribbing.



4. Divide ribbing into fourths and mark each fourth with a pin. Do the same procedure with the head opening in the washcloth.



5. Pin the ribbing to the washcloth, right sides together, matching the pins. Sew with an overlock stitch (or zigzag), stretching the ribbing to fit the washcloth as you sew. Be careful NOT to stretch the washcloth.

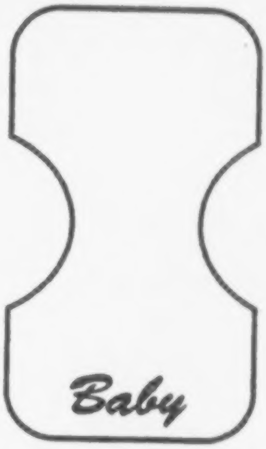


6. Cut a piece of fusible web slightly smaller than your appliqué piece. Place web between the appliqué and washcloth and press in place. Stitch around appliqué, using a decorative or small zigzag stitch.

Note: If using a hand towel (about 16 inches by 11 inches), fold the top down about 5 inches instead of 3 inches.

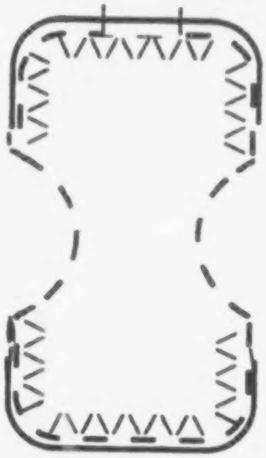
BURP CLOTH

Supplies needed: Flannel fabric Eyelet, lace, or piping Interfacing



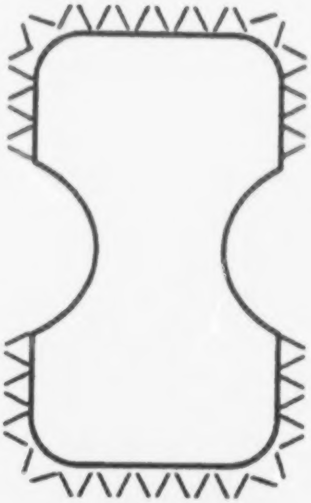
1. Trace burp cloth pattern and cut three (3) pieces out of flannel. (You can use one print piece and two plain pieces or vice versa. One plain piece will be used as the middle piece to add stability for the machine embroidery and make it more absorbent.)

2. Write a name or word on the bottom of the front piece. Pin the front piece to the center piece, sandwiching a piece of interfacing in between. Apply the machine embroidery directions for your machine and stitch the name.



4. Sew the eyelet, gathered lace, or piping around the edge of the front piece, making sure the outside edge of the insert faces inward and the biased (raw) edge is at the edge of the flannel.

5. Pin the right sides of the front and back piece together. Sew around the edge, stitching slightly inside of the stitching line on the insert (lace, piping, etc.). Leave about 3 inches open (unstitched) for turning.



6. Turn the burp cloth right side out. Fold the edges of the opening to the inside and press. Sew a decorative stitch around the edge of the burp clothing, stitching along the edge of the flannel. This finishes the edge nicely.

Note: Terry cloth can be used for this project, but it makes the machine embroidery very difficult.